

Smart Computing

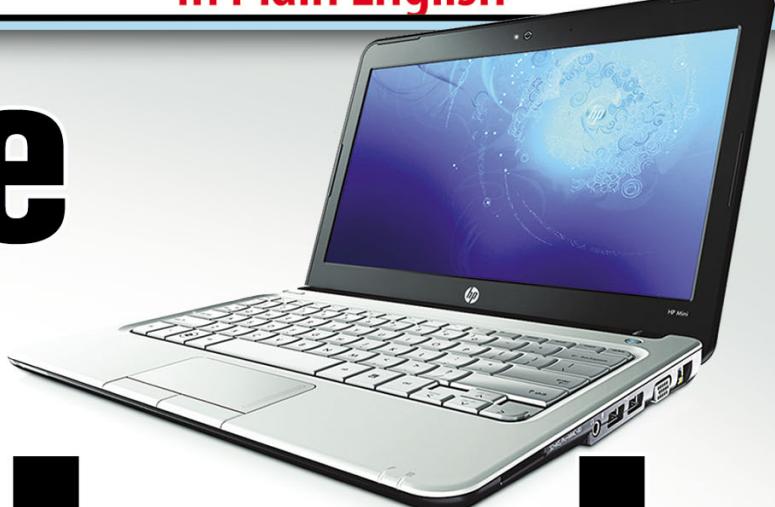
& CONSUMER ELECTRONICS

In Plain English

smartcomputing.com

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2010
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Tyler Sand, Summit Group Software, www.summitgroupsoftware.com

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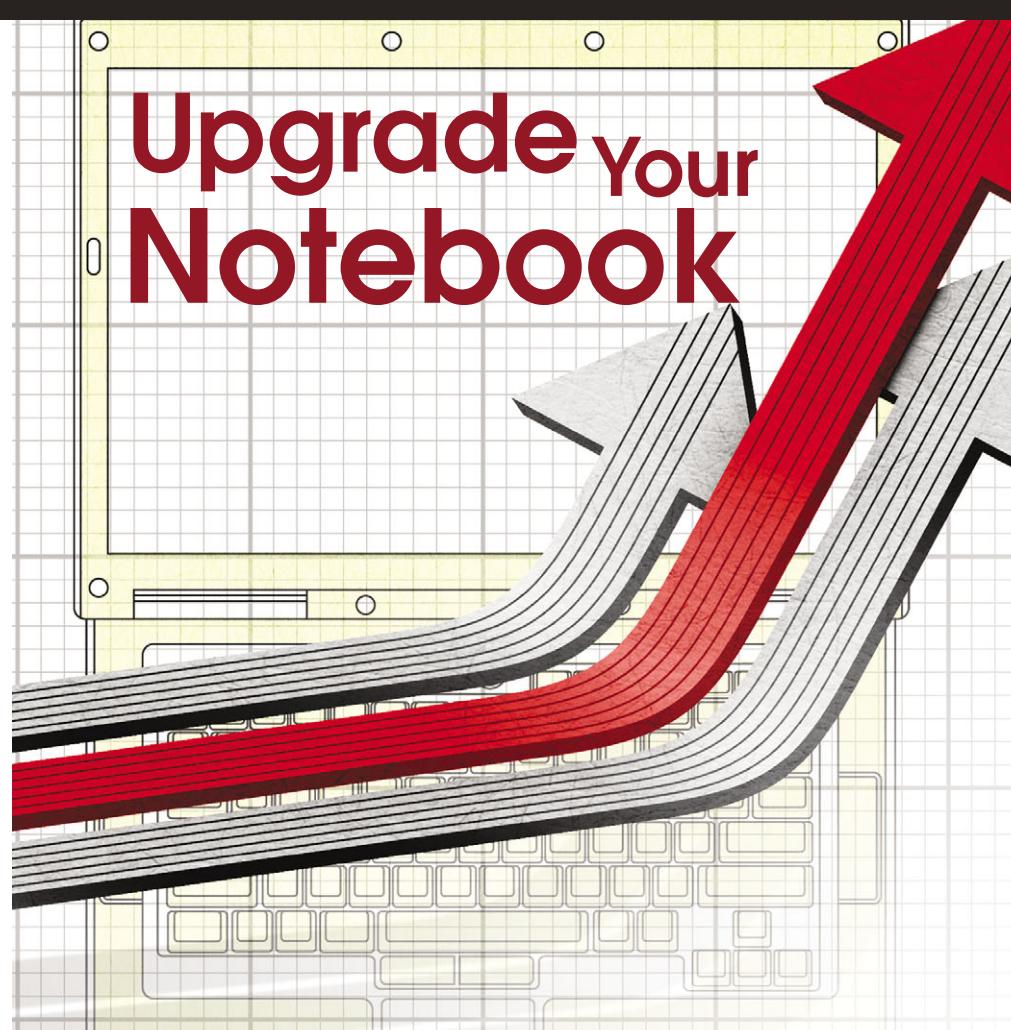


E-mail Marketing Tool

Connect with your website visitors and customers by sending marketing newsletters.



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Mophie Juice Pack Air

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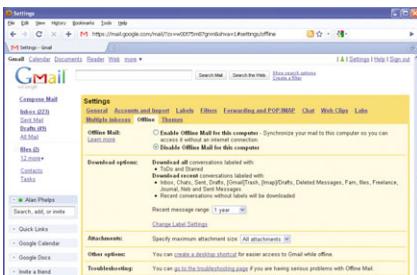
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Editor's Note

Lately, I've been surprised by the number of my friends and family members who consider a notebook to be their primary computer. It wasn't that long ago that people bought notebooks mostly for travel. Notebooks were portable, but they were way too underpowered (and too expensive) to compete with desktops for that No. 1 spot.

These days, a typical notebook boasts serious power and storage space. Prices have declined, too, but not so much that you'll be itching to buy a new notebook when your current one begins to drag its feet.

No, a hardware upgrade is still a good compromise that will give your notebook a performance boost at a lower price than a new machine. Thankfully, upgrading a modern notebook is pretty easy. And with Windows 7 here and getting rave reviews, now isn't a bad time to install a new hard drive (and a new operating system). We'll show you what to do.

Also, don't forget to check out our close-up look at this year's security suites. Although some PC enthusiasts combine various free security programs to protect their computers, many users opt for the easy-to-manage, yet comprehensive, security that a suite provides. We dig in and share our thoughts about just how easy (or difficult) it is to use each of these suites.

Joshua Gulick

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How To Get Rid Of . . .

You didn't intend to, but somehow you managed to download malware onto your system. It can happen to anyone, but how do you get rid of it? If your computer has been infected with a pesky worm, virus, or other malicious intruder that you don't know what to do about, check out our How To Get Rid Of articles in the SmartComputing.com Tech Support Center. You'll find numerous articles on how to remove worms, viruses, spyware, adware, and other nuisances from your system.

- 1 Log in to SmartComputing.com. Then click the Tech Support Center link on the home page.
- 2 Once in the Tech Support Center, scroll down to the Security & Privacy section. Click the How To Get Rid Of . . . link.
- 3 Click the link for the item you are trying to remove. You will then be taken to a full article that provides a description of the item and tells



you how to tell if it's on your PC and how to eliminate it. Some articles provide helpful links to outside sources (Symantec, Microsoft, etc.) that can provide additional information to help solve your problem. Check out these helpful articles today!

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How To Get Rid Of...

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How To Get Rid Of SoBig & Variants SoBig.B, SoBig.E, SoBig.F
How To Get Rid Of BadTrans
How To Get Rid Of Bagel
How To Get Rid Of Bagel.F
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How To Get Rid Of AboutBlank
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SmartComputing's Fun Site Of The Day

Keybr

This site (keybr.com) aims to help you speed up your typing. Work to increase your words-per-minute average by taking the typing challenge. Just follow the on-screen text to exercise those typing muscles. You can choose from three levels and change the on-screen keyboard's language and layout, as well.

keybr.com

Language/Layout: Tutorial

Paused
Top speed: 44, average speed: 34
Total errors: 100
Total time spent: 1:00

000 Errors: 000

Play Typing Games Free! Take a Break with Free Online Games! Play now & Win Real Prizes! Practice Typing Tutor! Track Your Progress with Detailed Reports & Graphics! Available for All Operating Systems!



2009 Search Terms

Social networking sites seem to have fickle friends. According to Hitwise, the top search term for 2009 was "Facebook," bumping 2008's top term, "MySpace," to No. 2.



More Tech Data

Interested in modding, consumer electronics, or mobile tech? We have a magazine for that. Subscribers can browse our sister publications online free. Visit www.smartcomputing.com and scroll down to the bottom of the page for links to these other magazines.

Thomas J. Watson Sr.

On Feb. 17, 1874, Thomas J. Watson Sr. was born. In 1914, he became the general manager of the Computing-Tabulating-Recording Co. According to the *Smart Computing Encyclopedia*, "The company name is gone because Watson changed it in 1924 to one most people are more familiar with: International Business Machines, or IBM."

Search The Tech Support Center

Computers, printers, and other devices are wonderfully helpful tools—when they're working. But it's frustrating when a computer won't boot up or a printer won't, well, print! The only thing more frustrating is not knowing where to find answers.

Now it's easier than ever to find the information you need by searching SmartComputing.com's Tech Support Center. Simply type a word in the search box and you'll find information on that topic from different areas of the Tech Support Center including Solutions Knowledgebase, Security & Privacy Web Log, Basic Troubleshooting Articles, How To Install, and many more! Topics ranging from hard drives and printers to the Blue Screen Of Death and that pesky Red X are all covered extensively in an easy-to-understand problem/solution format. Accessing this information is simple. Here's how:



1 Go to SmartComputing.com and click the Tech Support Center link.

2 Enter a subject in the Search box and click Search. Avoid using words such as "problems" or "malfunction" and use the Top Subjects links whenever possible.

The screenshot shows the 'Tech Support CENTER' section of the website. At the top, there's a search bar with the placeholder 'Enter a subject to search by:' and a 'Search' button. Below the search bar, there's a list of 'Top Subjects' including 'Red X', 'Safe Mode', 'Hard Drive', 'Startup Menu', and 'Outlook Express'. The main content area is titled 'Search The Tech Support Center' and contains sections for 'How To Use This Search', 'Error Messages', 'Basic Troubleshooting Articles', and 'Solutions Knowledgebase'. On the right side, there's a sidebar for 'Tech Support Center' with links to 'Error Messages', 'Solutions Knowledgebase', 'Basic Troubleshooting Articles', 'Security & Privacy', and 'How To Get Rid Of'. Below that is a sidebar for 'Try 3 Issues of Smart Computing, RISK-FREE!' with a form to enter a name and email address, and a 'SEND ME SMART COMPUTING!' button. At the bottom of the sidebar, there's a note about Canadian residents.



The newsletter header includes the title 'SmartComputing.com Daily' and the date 'Tuesday, January 5, 2010'. It features a 'Tip' section with 'Single PC Home' and 'Wireless Network Connection Issues', a 'Fun Site' section with 'Jeopardy', and a 'Next Month's Articles Online Now' section with 'Email Security'.

Discover The Web

Think you've reached the last page of the Internet? Check out the Fun Site Of The Day at www.smartcomputing.com for Web sites that we think are bookmark-worthy.

The Ultimate User Group

This month in 1977, Jonathan Rotenberg founded the Boston Computer Society. It would grow to become the largest such group in the world with more than 30,000 members. The group officially closed in 1996.

Get The Facts

Read up on the founders of modern computing and learn about the terms and technologies that make the computing world go round by visiting SmartComputing.com. Click the Computing Dictionary & Encyclopedia link on the left side of the page to start your research.

SmartComputing's Daily Fun Fact & Stat

I'll Subscribe To That

According to The NPD Group's latest Entertainment Trends in America study, we're fond of our CE-enabled entertainment subscriptions. The study found that for 2009, overall monthly entertainment-content subscription spending climbed to \$115 per person, which is up almost 7% since last year. Subscription services that saw growth include TV service, Internet, online music service or satellite radio, online gaming services, mobile data subscriptions, and home-video subscription services.



"I love this product! CarMD helped me avoid buying a lemon and helped save me over \$2,000 in unnecessary repairs. Very simple to use and a lifesaver."

— Brian L., Ottawa, IL

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Great Gift For Car & Truck Lovers!

CarMD Is Now For Both Mac & PC

Car problems don't care if you have an important business trip or family vacation planned. So what do you do when that dreaded "Check Engine" light comes on just hours before your big trip? Drive straight to the mechanic? Cancel your trip? Maybe it's just a loose gas cap. But what if it's something expensive that will take days to fix? Thanks to the revolutionary CarMD handheld device, now virtually everyone who owns a vehicle can quickly and easily solve automotive repair mysteries—right from home.

How It Works

When your car's "Check Engine" light appears, or even before, plug the CarMD handheld device into your vehicle's Data Link Connector (DLC). The DLC is a small port found right under the dashboard on all 1996 and newer vehicles. It's the same place your mechanic plugs in his expensive diagnostic tools. Not sure where to look? Visit www.CarMD.com to search by year, make and model.

In seconds, CarMD beeps to confirm the test is complete. Then the tool's built-in LEDs let you know how severe the problem is (Green = OK, yellow =

possible problem, red = service required). A yellow light can even help you catch a hidden engine problem before you're miles into your next road trip.

To learn more about your car's problem, connect CarMD to your computer using the included software and USB cable. CarMD customers gain free access to an extensive online database (www.carmd.com) that helps diagnose the cause and estimate what repairs should cost down to fair parts and labor in your region. The reports can be used to help do-it-yourselfers with repairs, and give you a bargaining tool with your mechanic.

Now For Mac

The CarMD 2100 Handheld Device & Software Kit now includes Version 3.0 software for both Mac and PC use. In addition to working with Microsoft Windows® 2000, XP and Vista, CarMD has been specially designed to run on a wide range of Apple® Mac operating systems. CarMD has also made substantial enhancements to its website (www.CarMD.com), including helpful Vehicle Health Matters content and videos, and vehicle recall look-up.

Why Everyone Needs CarMD

- CarMD works on 1996 and newer cars, light trucks, minivans and SUVs—foreign and domestic. For sale in the U.S. only.
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DESKTOPS & LAPTOPS

Samsung Go Puts The Mobile Back In Mobility

By their nature, notebooks and netbooks are mobile devices. But let's face it: Not all designs are quite mobile enough to stash in your backpack or purse without serious hassle. Samsung's Go netbook isn't one of those pseudo-mobile devices.

The Go (\$479.99; www.samsung.com) is a netbook that measures just 10.3 inches in length and weighs 2.9 pounds. Despite its scant size, the Go offers plenty of computing power and features, along with a battery that can last practically all day. This netbook also comes in a choice of four colors (Sunset Orange, Midnight Blue, Mint Blue, and Jet Black).

Powered by the Intel Atom N270, the Go offers decent processing power that won't drain the battery before you can blink. Along with its energy-conscious processor, the Go features a 6-cell high-capacity battery that's estimated to provide up to nine hours of computing on a single charge. The Go also has a 10.1-inch (1,024 x 600 resolution) display, 1GB of DDR2 (double-data-rate 2) RAM, a 160GB hard drive, integrated wireless and Bluetooth, a 1.3MP (megapixel) camera, and a 3-in-1 memory card slot.

The Go's keyboard uses a pebble design that is completely flat and has key spacing that's a little different from traditional (nonpebble) keyboards. If you've never used a pebble keyboard, typing can take a little



The Samsung Go netbook features a "pebble" keyboard that's flatter than traditional keyboards and requires minimal pressure to depress keys, providing a better ergonomic experience.

time to grow accustomed to, but the idea is based around ergonomics, including the short distance that the keys travel up and down when you press and release them.

While the standard version of the Go comes with Windows XP Home Edition, AT&T offers a model that uses Windows 7 Starter, a pared-down version of standard Windows 7 versions. (The AT&T model has

an online price of \$199.99 with a two-year AT&T contract.) It also includes 3G connectivity, which lets you take advantage of AT&T's 3G broadband network. And it's worth noting that the AT&T model uses a 4-cell battery that's rated at up to four hours of in-use time, so if you're looking for all-day computing, the non-AT&T model might be a better choice. ■

STORAGE

Bring A Cloud Into Your Home

For enterprises, cloud-based technologies are an attractive alternative to traditional storage architectures, thanks to their ability to provide seamless access over the Internet and other networks. Consumers have been enjoying cloud services such as Web-based email, but the concept is beginning to extend more to consumer storage.

An example is Cloud Engines' Pogoplug (\$129; www.pogoplug.com), a small desktop device that lets you connect USB drives to the Internet. Once connected, you access your stored data from any Internet connection in the world or allow friends and family to access your files. The Pogoplug even supports the iPhone, so you can tap into your stored data even when a desktop or notebook PC isn't available.

Getting in gear with the Pogoplug is simple: Simply plug it into an electrical outlet, connect it to your router with the included network cable, connect an external USB hard drive or other USB 2.0 storage device to the Pogoplug, and type in a registration code at my.pogoplug.com. Although the data that you access on your drives might be forwarded through the Pogoplug servers, the data isn't retained on the

servers. Further, the company offers encrypted access to your files via HTTPS (Hypertext Transfer Protocol, Secure), so you can feel free to use the device for sensitive data. ■



The Pogoplug creates a storage cloud in your home that lets you, friends, and family access data stored on USB hard drives and flash drives from anywhere on the Internet, all over a secure connection.

DISPLAYS

A Counter Display With Benefits

By now, you're likely familiar with all-in-one PCs, which blend standard computer components with a thin LCD to create a sleek PC unit that can fit on a kitchen counter or other nontraditional computing spot. For some users, AIOs are overkill if they need only to listen to some Internet radio or quickly check for Facebook status updates.

For those people, HP's DreamScreen (www.hp.com) might be the perfect alternative. This device is essentially a stripped-down AIO that comes in two widescreen display sizes—10.2 inches (\$249.99) and 13.3 inches (\$299.99). The DreamScreen uses built-in Wi-Fi to connect to your wireless home network for access to Pandora Internet radio, Facebook, weather updates, and Snapfish.

The touchscreen display has a built-in alarm clock, calendar function, full-screen video ability, and a photo slideshow function. Using your home network connection, you can also wirelessly copy photos, music, and video files from your PC to the DreamScreen. Both DreamScreen models sport an 800 x 480 resolution and include 2GB

(1.5GB usable) of storage space, two USB ports, a 6-in-2 card reader, built-in stereo speakers, a line out for headphones or external speakers, and a headphone input. ■



If an all-in-one computer is overkill for your counter, check out HP's DreamScreen, which provides photo, video, weather, and other functions via its slick touchscreen.

Print Or Show? This Device Does Both

Last month, we covered the emerging trend of digital frame/photo printer hybrids, and we continue that this month with a new entry from Epson. The company's PictureMate Show PM 300 merges these functions in a compact box that's both portable and attractive.

The PM 300 (\$299.99; www.epson.com) features a 7-inch widescreen photo frame that doubles as an editing and preview monitor for photo prints. For the frame function, the device has 12 slideshow options, including book, calendar, clock, and museum—all of which are controllable with the included remote control. The PM 300 includes 270MB of internal storage, so you'll have the capacity to display (or print) hundreds of photos.

The PM 300 prints photos in sizes ranging from 0.3 x 0.3 inches to 4 x 6 inches and in color, black-and-white, or sepia tones. Several editing tools are included, such as auto correction, crop, red-eye removal, and others, and the PM 300 prints photos in as fast as 37 seconds. With an optional Bluetooth adapter (\$39), you can wirelessly print photos from your PC. ■



With a vibrant, 7-inch widescreen display, Epson's PictureMate Show PM 300 serves as a photo frame, but behind that display is a full-function photo printer.

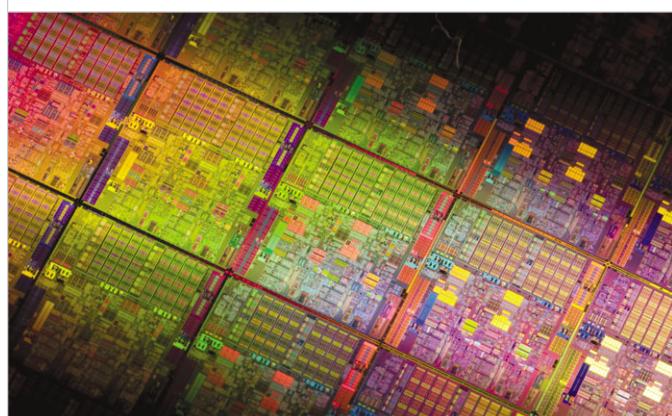
Intel Unwraps Next Wave Of CPU Innovation

Intel has announced the arrival of 17 new chips based on the company's new 32-nanometer manufacturing process, effectively ushering in a new generation of faster, more energy-efficient computing. These CPUs are expected to appear in desktop and notebook PCs in the coming months.

The company's 32nm technology is code-named Westmere, and the chips are based on Intel's Nehalem microarchitecture, which initially used a 45nm manufacturing process. With the move to 32nm, Intel (along with its primary rival, AMD) is able to create chips that feature increased performance and smaller processor cores and that also allows for the creation of simplified motherboards.

The new chips will appear in several Intel lines, including Core i3 (low-end systems), Core i5 (mainstream systems), and Core i7 (high-end systems). The chips will vary in terms of dual-core and multicore, but regardless of core number, each core can run more threads than previous Intel cores. Further, the chips take advantage of Intel's Turbo Boost technology, which has the ability to increase

processor frequency if conditions are favorable or disable cores when they're not needed (in turn saving power). ■



Intel's new Westmere 32-nanometer chip manufacturing technology enables the company to produce dual- and multicore chips with cores that run more threads than previous Intel cores.

DIGITAL MISCELLANEA

USB 3.0 Gets The Flash Treatment

Now that the first wave of USB 3.0-enabled motherboards has hit the market, we're seeing devices emerge that take advantage of the lightning-fast interface. One of these is Super Talent's SuperSpeed USB 3.0 RAID-Drive, a flash drive that can supply transfer rates at up to a stunning 10 times faster than USB 2.0 drives.

Available in capacities of 32GB, 64GB, and 128GB, the USB RAIDDrive (price unavailable at press time; www.supertalent.com) features backward compatibility with USB 2.0 and 1.1 and offers transfer speeds of up to

300MBps. The drive is Windows 7-compatible, and it includes an LED (light-emitting diode) that indicates that drive is on or busy.

Keep in mind that if you recently upgraded your computer with a motherboard that doesn't support USB 3.0, or if you simply don't want to upgrade at this time, your system isn't necessarily obsolete. USB 3.0 PCI (Peripheral Component Interconnect) cards are on the way, which will let you use the new protocol, regardless of what your system natively supports now. ■



Super Talent's SuperSpeed RAIDDrive takes advantage of the emerging USB 3.0 technology to provide transfer speeds up to 300MBps, or up to 10 times faster than USB 2.0 drives.

PROBLEM-SOLVER: TROUBLESHOOTING THE NEWS

I installed two RAM modules, but the BIOS (Basic Input/Output System) and Windows acknowledge only one.

Are the memory modules rated at different speeds? If so, use the BIOS to change the speed of the higher-speed module to match that of the other module. If the modules are different capacities (for example, 1GB and 512MB), make sure the larger module is in the first memory slot on the motherboard.

My monitor goes blank after my PC boots into Windows.

Download the latest driver for your graphics card and then boot into Windows Safe Mode (press and

hold F8 as the PC is booting). Using the Control Panel, uninstall your card's current drivers and reboot. If Windows automatically recognizes your card and starts installing drivers, cancel the procedure. Instead, install those new drivers you previously downloaded.

My USB mouse and keyboard aren't working in Windows even though they're receiving power.

If the lights on your keyboard are on but the keyboard (or other USB peripheral) is not working, there may be a problem with your USB drivers. Try manually downloading and installing the latest USB drivers offered

by your motherboard manufacturer. Alternately, if you've made changes in your BIOS, try resetting the BIOS to its default settings.

My overclocked CPU is crashing after I installed a new PSU (power supply unit).

Even if your new PSU has equal or more wattage than the unit it replaced, you may need to make some small tweaks to ensure compatibility with your new CPU. If your overclocked CPU hangs during boot time or locks up during computing sessions, try raising the CPU voltage very slightly in the BIOS until you reach sustained stability. ■

Fuse Ignites Ideas For An Exciting Smartphone Future

Now that highly intuitive, user-friendly smartphones such as the iPhone and Droid are commonplace among consumers, it's tempting to look ahead for the next big potential splash. There may be no better place to find a glimpse into the smartphone future than in the labs of Synaptics.

Along with Texas Instruments, Immersion, TheAlloy, and The Astonishing Tribe, Synaptics (www.synaptics.com) has developed a smartphone concept called Fuse that features sensing technologies surrounding the entire device. These technologies serve as a substitute for traditional interface-driven functions by letting you grip or squeeze the phone to pan and scroll, for example. Along with this grip-driven concept that allows for single-handed navigation, the Fuse also includes 2D navigation on the back of the phone that enables control without obstructing the display.

"Consumers have many options when it comes to choosing a smartphone, and though many phones are loaded with applications to simplify one's life, they often accomplish just the opposite," says William Stofega, IDC research manager for mobile device technology and trends. "Synaptics partnering with innovative industry leaders to deliver an intelligent concept device that has the consumers' lifestyles in mind will help showcase the true potential of the smartphone."

The grip-like material on the Fuse concept smartphone isn't there to prevent you from dropping it. Instead, it contains advanced interface technology that lets you squeeze the phone to pan, scroll, and perform other functions.



Features such as proximity sensing, two-finger input, grip sensing, text entry, and high-resolution finger input are provided via Synaptics technologies such as ClearPad, NavPoint, and TouchButtons. The company's ClearPad touchscreen is particularly intriguing, as it has 48 sensing channels to allow 10-finger control and gestures such as crumple and scratch.

Synaptics' innovative interface contributions are only part of the Fuse experience, as other companies chipped in to create the unique concept. For example, The Astonishing Tribe enabled the phone's 3D environment and helped with the interface design;

Immersion provided the tactile feedback; Texas Instruments' OMAP 3630 processor delivers the horsepower required for the phone's multimedia, graphics, and imaging features; and TheAlloy spearheaded the Fuse's user experience and overall product design.

Now for the semi-bad news. When Synaptics describes this phone as a concept, it means it—the Fuse is not expected to enter the smartphone market as an actual product. However, it's likely that the ideas and actual parts used in the phone will be picked up by smartphone manufacturers in the near future. ■

DULY QUOTED

"If you have something that you don't want anyone to know, maybe you shouldn't be doing it in the first place."

—Google chief executive Eric Schmidt comments on online privacy and notes that search engines such as Google retain information for "some time." The Electronic Frontier Foundation criticized Schmidt for failing to recognize that privacy efforts often involve more than simply hiding wrongdoing.

Sources: CNBC; Electronic Frontier Foundation

News From The Help Desk

Our Most Common Tech Calls

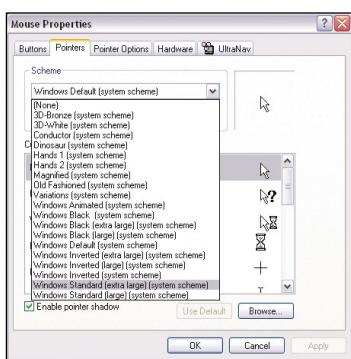
COMPILED BY KRIS GLASER BRAMBILA

Each month, we receive numerous technical support calls and email messages. Some computer problems are fairly common, and we find that many callers struggle to resolve the same issues. In this article, we cover some of the most common or timely tech support questions and provide our solution for each of them.

Q I have trouble seeing while using the computer and would like to increase the size of the mouse pointer. I can't seem to find a way to do this, if it's even possible. Is there indeed a way to enlarge the pointer arrow?

A Changing the size of your mouse's arrow pointer only takes a few clicks. In Windows XP and Vista, go to the Control Panel. Click Classic View or Switch To Classic View on the left side of the window to make it easier to browse the list of Control Panel options. In Windows 7, choose Large Icons from the View By drop-down menu. Next, choose the Mouse icon to display the Mouse Properties window. Under the Pointers tab, locate the Scheme section, which offers several different pointer types and sizes.

Windows displays a fairly small mouse pointer by default. For a larger pointer, choose Windows Standard (Extra Large) (System Scheme) from the drop-down menu. Click Apply and move your mouse around. If you are satisfied with the pointer, click OK. If not, browse through the other available pointers in the Scheme list, such as Magnified (System Scheme), which enlarges the pointer arrow and outlines it in black to make it more visible.



You can make your mouse pointer easier to see by enlarging it in the Mouse Properties options.

Q When I put a CD or DVD in the CD/DVD drive of my WinXP computer, nothing happens. Why won't the computer recognize that I put in a disc?

A Sometimes it can take your computer a few moments to recognize a disc before it takes action. But if after a few minutes nothing happens, you should try the following suggestions.

First, try manually opening the disc's content. Go to My Computer, locate your disc drive, and double-click it to open. If the disc does not open, eject it and examine its surface for damage, such as scratches or dents. If damage is present, insert a different disc into your drive and see if the computer recognizes it. If the new disc works, the original disc may be too damaged to play. If the original disc appears to be free of damage, try cleaning it.

To clean your disc, use a cleaning kit or a dry cotton cloth and gently wipe the disc from the center outward. Avoid wiping the disc in a circular motion, as this could cause scratching. You can also use water or a disc cleaning solution to remove stuck-on debris. Once the disc is clean, try it in the drive again. If your computer still does not recognize the disc, move on to the suggestion below.

It's possible that your drive's AutoPlay function is not set correctly. Go to My Computer, right-click your disc drive, and choose Properties. Under the AutoPlay tab, choose what type of content is on your disc (such as music, pictures, etc.) from the drop-down menu. Next, locate the Actions section. If you want Windows to play your disc automatically, select the radio button next to Select An Action To Perform, then choose Play, Open Folder To View Files, etc. (Options will differ depending on your selection in the drop-down menu.) If you want Windows to ask which action you want to take each time you insert a disc, select the radio button next to Prompt Me Each Time To Choose An Action. Click OK. Reinsert your disc and wait for Windows to recognize it.

If your disc still won't play, your disc drive may be damaged or may not have the proper updates or drivers. If you're using a writable disc, it could be that it is simply that one faulty disc out of the whole pack. For more troubleshooting tips, point your browser to the following Microsoft Support page: tinyurl.com/ya2vq7l.

Q I need to know if my version of Windows is 32-bit or 64-bit. Where in Windows can I find this information?

A Many software programs that you might purchase are compatible with either a 64-bit or 32-bit version

of Windows, so it's important to know which OS (operating system) version your computer is running. If you have WinXP, you likely have a 32-bit version, but to be sure, go to My Computer and click View System Information on the left side of the window. When the System Properties window appears, click the General tab and look for your OS version under the System section. A 64-bit version will list x64 in this area, and a 32-bit version won't.

In Vista and Win7, navigate to Computer and click System Properties at the top of the window. On the resulting screen, locate System Type under the System section and note which version you have.

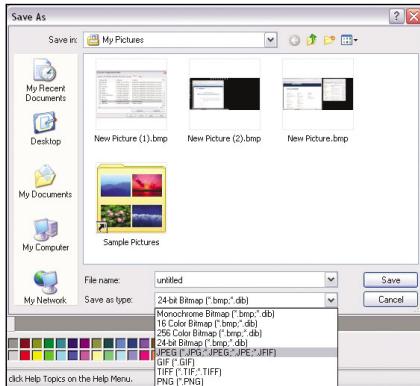
Q I recently bought a new computer and want to transfer all of my Google Chrome favorites from my old computer to my new computer. How does this process work?

A The process for exporting and transferring your bookmarks from Google Chrome is much the same as in other Web browsers. When you open Chrome, click the wrench icon in the upper right, which lets you customize and control Chrome. Choose Bookmark Manager from the options, and in the Bookmark Manager window, click Tools in the upper left and then Export Bookmarks.

When the Save As window appears, browse to a location, such as your hard drive or a USB flash drive, to save your bookmarks. Click Save. Use your USB flash drive or email account to transport your saved bookmark file to your new computer.

To import your bookmarks on your new computer, follow the directions above, but choose Import Bookmarks instead of Export. Locate the file on your hard drive or flash drive and then click Open. Your bookmarks will automatically import and be available to you while you browse with Chrome.

Q I have a number of pictures on my computer that are saved as BMP (bitmap) files. I would like to convert



You can convert BMP files to JPEG files with Microsoft's Paint application.

these images to JPEG (Joint Photographic Experts Group) files so that they do not take up as much space on my hard drive. Is it possible to do this, and if so, do I need a special program?

A Converting a BMP file to a JPEG file is simple and does not necessarily require any exclusive software. In fact, you can use Paint, the image-viewing/editing application that's built into every version of Windows. Go to Start and choose All Programs. Under the Accessories section, choose Paint. When Paint opens, click Edit and choose Paste From. (In Win7, click the Paste arrow and choose Paste From.) Locate the file you would like to convert and click Open. Once the picture loads, click File (or the Paint button at the top left in Win7) and choose Save As. Type in a name for your image, then choose JPEG from the Save As Type list. When finished, click Save.

You can also download a free conversion program such as IrfanView, which will let you convert multiple files at the same time. To download IrfanView, point your browser to www.irfanview.com and click the IrfanView button under Download on the right side of the page. Click the green Download Now square on the resulting page. Save the file to your hard drive. When the download is complete, double-click the .EXE file to begin the download. ■

Feature Package Topics

Each Smart Computing issue includes tips, reviews, and information about a variety of topics. However, each issue also has a featured group of articles about a selected topic. Below is a list of the Feature Packages from the previous year. As a Smart Computing subscriber, you have access to all of our archived articles at www.smartcomputing.com.

March 2009:	Clean Out Old Software Clutter
April 2009:	Save Money On Your PC
May 2009:	Restore Windows
June 2009:	Get More Mileage Out Of Your PC
July 2009:	8 PC Emergencies
August 2009:	Stay Safe Online
September 2009:	Master Your Browser
October 2009:	Driver Updates
Fall Issue:	Upgrade Your PC
November 2009:	Windows 7
December 2009:	Holiday Gift Guide
January 2010:	The Single PC Home

Become A Better Presenter

Logitech R400 & R800

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For some, standing in front of an audience to give a presentation is second nature, and many people are expected to do it on a regular basis as part of their jobs. But for others, presentations are stressful to prepare for and may even cause a little anxiety. If you haven't prepared thoroughly and if your materials are unorganized, your audience will know. No matter what type of presenter you are or how often you present, Logitech has two little assistants that are sure to help.

R400

The Wireless Presenter R400 is designed for use in small meeting rooms. It has a red laser pointer and a range of up to 50 feet, so you can move around the room but still direct the audience's attention to the information you're demonstrating. The design is very user-friendly. There's an On/Off switch and five buttons, including the laser button, forward and back arrows for slide control, a play button to launch slideshows, and a black screen button. It didn't take long for my fingers to learn the button placement, and within a minute, I was using the R400 without having to look down at it. (I can operate this little gadget much easier than the TV remote that took me three months to master.)



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Professional Presenter R800 \$99.99



much you've gone over your allotted time. The R800's laser pointer is bright green, which is easy to see from a long distance.

Each presenter takes two AAA batteries (included) and comes with a padded case. The devices are plug-and-play, meaning a receiver simply plugs into an open USB port; there's no software to install. The receiver slides into a small compartment in the bottom of the presenter for easy storage.

The presenters are compatible with Windows XP/Vista/7. I've read forum posts in which Mac users had no problems using the presenters. Blog posts from Logitech state that the "R800 will work on most Macs," but due to system variations, it's not guaranteed.

Wow Your Audience

It's obvious how the R400/R800 would benefit professionals whose jobs require presentations on a regular basis. The R400 may be a better fit if you are in a boardroom a couple of times a month, but if you're a traveling salesperson giving pitches every other day with strict 30-minute time slots or a keynote speaker who presents in a different venue each time, then the R800 may suit you better. There are other situations when the presenters might be useful. Professors who want to engage their classrooms in interactive demonstrations would likely find the R400 appealing, or a student who's trying to master the art of delivering a speech to a full classroom could really benefit from the R800's timing feature. (I don't give a lot of presentations for my job, but what I wouldn't give to have had one of these handy little helpers in my Speech 101 course.)

Oh, yes. There's one more group that crossed my mind during this review. For all the computer user group members out there: I've attended many of your meetings, and I know the important role presentations play in some of your monthly gatherings. If you're a computer club officer who gives a lot of slideshow presentations or displays information on a projector screen for the entire group to see, a Logitech presenter might be worth a look. If nothing else, it'll make you look really cool in front of all your fellow computer club members. ■

Fresh Fruit In The Apple Bunch

iPod nano

TARA SIMMONS BANTAM

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iPods are like Kleenexes in that, for some, the name has come to represent an entire category of items. And while there are plenty of reasons to think outside the Apple box, the iPod's ubiquity isn't an accident. They pack a lot of features, and the pint-sized nano is no exception.

The newest lineup of iPods from Apple introduced basic changes to all the players, but the iPod nano got the biggest makeover with significant feature updates while maintaining solid performance in video and audio playback. The screen is a bit bigger than the 4th generation nano's at 2.2 inches, and even at this size, viewing video on the bright screen was easy on my eyes. I wouldn't want to watch a full-length movie on the small device, but it's great for short clips or music videos.

The new nano is touted as the thinnest iPod ever, and that's the first thing I noticed when I got my hands on it. It's just 0.24 inches at the fattest point, and tapered edges make it seem wafer-like. The aluminum casing limits the heft of the device (just 1.28 ounces) and also does a fair job of resisting finger smudging. (The glass screen, which takes up much of the device's face, is prone to smears, however.) Elsewhere, the newest nano is controlled by the familiar Apple Click Wheel.

At 3.6 x 1.5 inches (HxW), the nano is very portable, and I found it to be well-suited for both travel and exercising. Speaking of exercise, thanks to its accelerometer (a sensor that can detect orientation and motion), the nano can track your footsteps with a

built-in pedometer. It was a cinch for me to start the pedometer, adjust settings, and track my walking history. The included earbuds, on the other hand, didn't hold up as well while I exercised or used them during a long flight. The white earbuds included with iPods may be iconic, but that doesn't make them ideal. The hard plastic didn't fit well in my ears, and they were uncomfortable from the moment I started using them. Sound quality was good, but if I were to keep the device beyond my testing period, I'd invest in some more comfy 'buds.

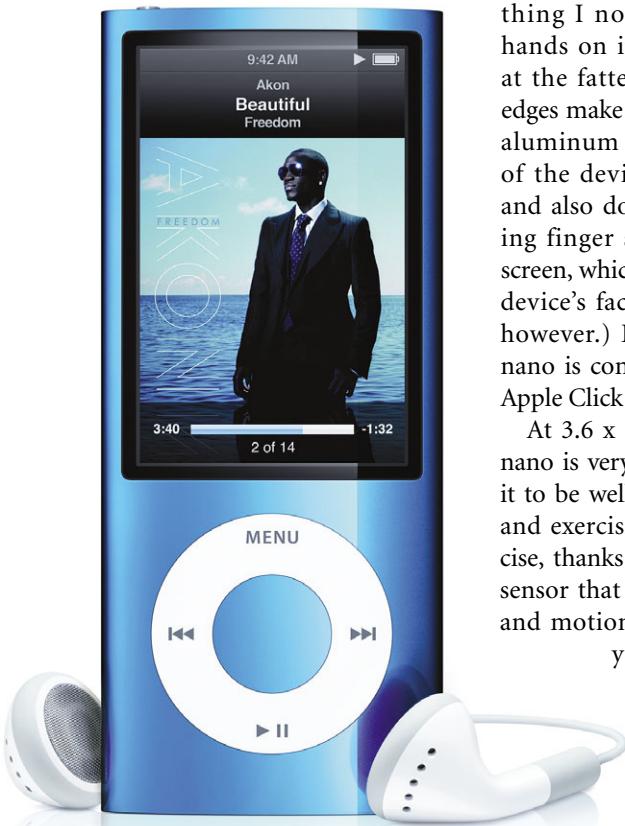
Though iPods have been around since 2001, the new nano is the first iPod ever to include an FM tuner. It's a long-overdue addition I appreciated, and the ability to pause, rewind, and fast-forward live radio is a nice bonus. Another first for the nano is the inclusion of a video camera (though there's not a still camera, oddly enough). As you might expect for a video camera of this size, the quality isn't stellar, but it's a fun extra. Fifteen different video effects (sepia, black and white, thermal, film grain, and mirror, to name a few) do a good job of both entertaining and masking the quality. With room for up to 16 hours of recorded video on the 16GB version, users can record plenty of important moments.

The one problem with the video camera is its location on the body of the device. It's on the back of the nano right behind the Click Wheel. So it's just where I wanted to grip the nano while using the video camera. Turning the device sideways to shoot video is the way to go, but it takes some getting used to. Also, with regular use, it seems the camera's unprotected lens could be prone to scratches in that position.

The nano supports a range of expected audio files including AAC (Advanced Audio Coding), MP3, and WAV. Other extras include an alarm, a sleep timer, a calendar, a contacts list, three games, a stopwatch, and a microphone to record voice memos (and audio for videos, of course).

The nano is a good choice for iPod fans looking for something more portable than the iPod touch or classic, but with more fun features than the iPod shuffle. And it's worth a look for those who want to carry around their tunes. ■

Image courtesy of Apple



Reduce, Reuse, Recycle, Repeat

Jury-rig Your Possessions

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When the world is running down, you make the best of what's still around." So goes the 1980 song by The Police, which the group remixed with other old tunes in their massive retour of reconcerts.

I, too, am a "waste not, want not" kind of guy. I come from a long line of packrats. It's standard procedure for me to hoard parts for computers that are obsolete, not to mention cars I no longer own. Hey, you never know when you might need a 5.25-inch floppy drive, a CGA monitor, or a radiator hose for a VW Quantum.

Regular readers (both of you) have similarly heard me confess just how skinflintastically cheap I am. I would rather try to fix 95% of the things I own than to pay someone else to do it. But before I head for the hardware store—which is another money pit I try to avoid—I scrounge for raw materials in the basement and garage. I've been known to crow triumphantly when a screw or a bit of metal I've had for twenty-odd years suddenly comes in handy.



Examples? I once turned a pile of discarded parts into a FrankenPC for less than a hundred bucks. I also extensively modified a horizontal computer case to support more drives and fans than nature intended. When the power switch broke on a boombox, I soldered a bypass wire across it. And so on.

Regular readers also know that I can't shut up about my new living room BD player-cum-Netflix movie streamer-cum-massive timesuck. (I won't belabor it here, so see last month's column. And the month before that.)

In any case, my wife thoughtfully bought a second game controller for it, so two family members could become slack-fleshed sofa spuds simultaneously. The other day I discovered that one of the used controller's trigger buttons wasn't as springy as the rest. In fact, it flopped and lolled about dispiritedly, making race cars accelerate when they should have been coasting, making Hellboy try to grab bad guys by the head when he should have been pummeling them.

After some disassembly and judicious breakage, neither aided overmuch by Google or YouTube advice, the controller lay bare on my workbench. Under the flaccid button was a broken spring finer than a human hair. "Way to build it tough," I grumbled at the manufacturer.

Long story short, I didn't have a replacement spring, which needed to be shaped sort of like Sputnik. I had various bits of wire, of course, but nothing that was spring steel.

Finally I hit upon the idea of using a small safety pin. I snipped it in half with some sidecutters, slipped it into place under the trigger, and put the controller back together. So far, the improvised spring works great.

You can apply this DIY (do-it-yourself) ethos to your own home electronics and computers, provided you work carefully. If you have an old CPU fan lying around, for instance, you might rig it to cool your RAM or pull heated air out the back of your audio receiver. Should your DVD drive continue to work after its motorized tray breaks, you can poke a straightened paper clip into the drive's tiny manual eject hole to open the tray when you need to. And with the troubleshooting help you get from *Smart Computing*, you may be able to keep your PC humming along for years to come. ■

Ultrasone Zino & Phiaton MS 300

They Sound As Good As They Look

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If you were a good boy or girl in 2009, it's possible you received a new MP3 player for the holidays. It's also possible you've been doing your listening with the low-end, run-of-the-mill earbuds that came with the player, which typically are neither terribly comfortable nor terribly capable of reproducing resonating bass, crisp highs, or mid tones that aren't muddled. To really get the most out of your new device audio-wise, you're looking at a headphone upgrade. Ultrasone's Zino and Phiaton's MS 300 are two options that are priced differently but share several traits, including especially good audio output and attractive, attention-grabbing designs.

Where comfort, audio quality, and affordability all come together, the Zino shines brightly. Crafted by German maker Ultrasone, the Zino initially knocks you over with its shiny, industrial appearance, with the standout feature being the headphone's brilliant, mirror-like earpieces. The Zino's arm-bands, meanwhile, are expandable and foldable and help form an overall square-like headband shape, which is surprisingly comfortable, though it does lack cushioning.

Elsewhere, the silver-tinged mesh that covers the Zino's ultra-soft ear cushions leaves them as comfortable as any headphones I've worn. Weighing roughly 3 ounces, the Zino's are barely noticeable. The only downside to the lightweight and square-like design is that the combination isn't particularly well-suited for active wearing, such as while jogging.

The Zino bypasses noise-canceling technology in favor of Ultrasone's patented S-Logic technology, which surrounds the outer ear in audio rather than tunneling audio into the inner ear. Further, whereas most noise-canceling headphones have earpieces that completely encompass the ear, the Zino uses semi-open ear cushions that only cover the outer ear. Ultrasone says its approach means the Zino uses "all of your sense of hearing" to produce a "broad and detached" listening

experience that "does not change your personal hearing" but rather "intensifies it."

Considering its price, the Zino performed magnificently. The spacious, aural listening atmosphere the Zino produces truly separates the headphones from the pack. Using 40mm gold-plated drivers, the headphones flesh out subtle nuances with impressive warmth and depth. Everything from the subtle brush and cymbal work in Van Morrison's "Moondance" to the huffing of Little Walter's harmonica on Muddy Waters' "Louisiana Blues" are not only noticeable, but also engrossing. Overall, stellar performance, appreciated comfort, and affordability make the Zino money well spent.

Up \$100 from the Zino, you'll find the MS 300 from Phiaton, a company that's part of South Korean manufacturer Cresyn (www.cresyn.com), which has been making consumer electronics since 1959. The MS 300 is part of Phiaton's Moderna Series, which also includes the larger but similarly designed MS 400 (\$249) and the MS 600 iPod dock (\$349).

As with the Zino, the first thing you'll notice about the MS 300 is its appearance, which is both striking—thanks to red leather cushioning lining the folding, swiveling ear pieces, and the expandable headband—and durable due to the carbon-fiber enclosures that house the headphone's 40mm electrodynamic drivers. Uniquely, Phiaton angles the MS 300's earpieces slightly forward, which aligns them nicely to the ear's natural curve. Further, at just 5 ounces, the headphones wear lightly but won't jostle when walking or jogging.

Although not noise-canceling, the MS 300's earpieces do block a good deal of ambient noise naturally. Additionally, Phiaton says that the use of "optimized airflow" helps bring out subtle layers in music with "acoustic impedance control for rich bass and smooth sounds at your preferred listening volume." In other words, expect lush, encompassing audio that packs an oomph without having to crank the volume.

After weeks of use, I appreciate that the MS 300 is a very capable jack of all trades that can play back the scores of bluegrass strings at work in Bill Monroe's "Blue Moon Of Kentucky" with seemingly the same distinction and clarity as the thudding bass lines that anchor Bob Marley's "Buffalo Soldier." If your musical tastes are diverse, the MS 300 has plenty of function to go with its flash. ■

Head-To-Head: Internet Security Suites

Multifaceted Protection

You likely already know to use antivirus and antispyware programs, but there is an alternative to installing these and other anti-malware programs separately: Internet security suites. These combine multiple security products, letting you manage everything from a single integrated interface.

We tested six of the leading commercial and free suites to see what features they bring to the table. All of the suites we looked at have antivirus and antispyware built in, and some suites come in premium versions that include other software such as PC optimization tools. Whenever possible, we only tested software that focuses solely on Internet security.

One thing to note is that all of the software tested for this article did a great job of detecting and dealing with threats. We subjected them to Web sites known to deliver malware and also intentionally tried to infect the test PC. All of the suites prevented infection, so we'll focus more on features in the reviews. If you want a more exhaustive look at how these products compare solely in terms of detection, visit AV Comparatives—an independent testing organization—at www.av-comparatives.org. Also, if any terms that follow don't make sense, please refer to the "Malware Glossary" sidebar.

F-Secure Internet Security 2010

This suite is speedy, consumes few system resources, and does a good job of not interfering with your computer usage unless it needs to provide a warning.

The interface is elegant. The main page offers a Status button that takes you to an overview page, a Tasks button for working with the software's features, and a Statistics button to see how it has performed over time. The

suite offers real-time protection, a firewall, antiphishing, and extensive filtering options thanks to its parental controls. We were particularly impressed with the deep customization options that do a good job of explaining exactly what happens when you turn them on or off.

This package may lack some of the extras found in competing products, but for its core task of protecting every aspect of your computer, it is outstanding. It's straightforward to use, easy to configure, and doesn't generate a lot of annoying false positives.

Kaspersky Internet Security 2010

This suite has a slick interface that makes it easy for novices to get up and running while still offering all of the advanced tools an expert would want.

The interface groups all features into five distinct tabs. My Protection serves as a home page that displays an overview of what the software has done and what it has detected. Clicking any of the links there brings up the Protection Components window, one of this product's best features. It displays a list of every form of protection that is currently enabled or disabled. It also provides a clear overview of how it works, along with letting you click any entry to move directly to its settings page. Interfaces just don't get any better than this.

A firewall is included, as are heuristic scanning, filtering via parental controls, antispam, antiphishing, and real-time protection. We also liked Safe Run, a sandbox mode that is particularly useful for Web browsers. All of this and more work great using the default

settings, and the software is highly configurable, making this suite a standout in terms of features and performance.

McAfee Internet Security

McAfee Internet Security takes an everything-but-the-kitchen-sink approach, offering a firewall, filtering via parental controls, antiphishing, antispam, and a few tools that aren't typically associated with Internet security. One standout feature is SystemGuard, which prevents programs from making unauthorized changes to Windows.

SecurityCenter, the interface for accessing all of these features, is positively



F-Secure Internet Security 2010



Kaspersky Internet Security 2010

utilitarian. Simple menu choices in the left-hand pane open options in the right-hand pane, and nearly every option is explained well. Most protection-related content is accessible from the Home menu, and clicking an entry opens simple on/off switches along with Advanced buttons that can be clicked

BUYING TIPS

- **Understand the pricing.** Most commercial security suites are priced at yearly subscription rates instead of letting customers pay a flat fee for unlimited updates. Keep an eye out for coupons or other promotions that give you a break on the annual fee.
- **Are you covered?** If you need to protect multiple computers, look for suites that offer discounts for extra licenses. For example, PC Tools Internet Security covers three machines with its basic \$49.95 per year license.

for experts who want a little more configuration leeway.

The only complaint we have with this suite is that it generates a fair number of false positives when rooting out malware and spyware. Otherwise, the software has a nice interface that doesn't clutter up the display, and it comes with a lot of useful features.

Microsoft Security Essentials

This is Microsoft's first free comprehensive Internet security suite, and

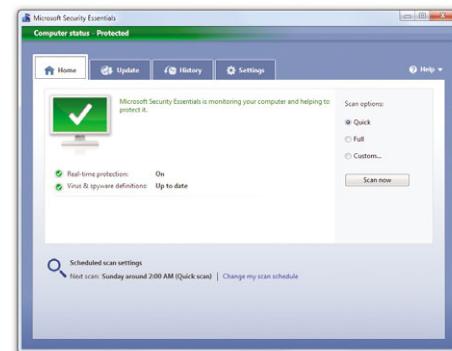
despite the price (or lack thereof), it all works really well. It focuses on the essentials: antivirus, antispyware, and real-time protection.

The tabbed interface is extremely basic and doesn't allow for much customization. It lets you schedule scans, adjust the default action the software takes when suspicious files are detected, set up scanning exclusions, and adjust a few other minor details.

The best thing about this software is that it stays out of your way until a real threat appears. When malware did crop up, Security Essentials dealt with it quickly and let us get back to work.



McAfee Internet Security



Microsoft Security Essentials

Overall, it is an excellent option for anyone—regardless of budget—who just wants basic protection that doesn't consume a lot of resources.

Malware Glossary

Wondering what some of those fancy features your Internet security software comes with actually do? Take a look:

Ad removal. This prevents banner ads, pop-up ads, and other types of ads from appearing when you browse the Web. This can make pages load faster and also prevents malware embedded in infected ads from launching.

Antiphishing. Phishing attacks are when emails, pop-up windows, or Web pages that look like they are from a legitimate source are actually from a criminal trying to obtain your personal information. Antiphishing software prevents you from opening known phishing emails and Web sites.

Antispam. This feature scans incoming email and

checks it against a spam database. If it finds a match, the spam is removed before you even see it.

Antispyware. Antispyware removes spyware designed to track your browsing habits, steal your personal information and passwords, and otherwise invade your privacy.

Antivirus. This tool removes viruses, worms, and trojans from a computer.

Filtering. This feature prevents you from visiting Web sites that are known to infect computers with malware or other objectionable sites.

Firewall. A firewall is a gatekeeper that sits between your computer and the Internet, checking data to make sure it is authorized to come or go.

Heuristic scanning. This is a form of antivirus protection that uses patterns from existing malware to detect potential new malware that hasn't been cataloged yet.

Real-time protection. This term describes the ability to detect that you are about to download or launch an infected file and prevent that from happening.

Sandbox mode. This feature creates a secure virtual area

that walls programs off from Windows so that the malware that infects the program can't spread to other locations.

Trojan horse. Also known as simply a trojan, this is apparently harmless or even beneficial software that hides a malicious payload.

Virus. A virus delivers a malicious payload when you open a file it infects and then tries to spread to other computers.

Worm. Unlike viruses, worms self-replicate and spread to other PCs on the network without human intervention.



PC Tools Internet Security

PC Tools Internet Security

This easy-to-use suite has a series of buttons on the left that open windows to the right and is easy to configure thanks to an extensive Settings menu. It comes with antispam, a firewall, and a slew of other types of real-time protection that fall into its IntelliGuard category.

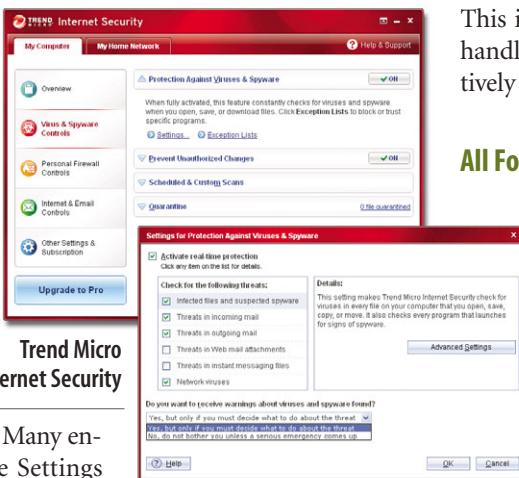
The IntelliGuard menu lets you easily enable, disable, or configure things such as real-time email and file protection. Arguably its best feature is Behavior Guard, which integrates PC Tools' ThreatFire (free; www.threatfire.com) into the suite so it has a good chance to detect and stave off new malware that hasn't been properly identified and cataloged yet.

Trend Micro Internet Security

Trend Micro Internet Security has a simple interface with main categories on the left that expand into more detailed information and options in a pane to

PRODUCT INFORMATION

Name	Price	Company	Contact Info	URL	Notable Features
Internet Security 2010	\$59.99	F-Secure	(888) 432-8233	www.f-secure.com	Great configurability; doesn't generate many false positives
Internet Security 2010	\$59.95	Kaspersky	(866) 328-5700	www.kaspersky.com	Good for both novices and experts; very easy to work with
Internet Security	\$34.99	McAfee	(866) 622-3911	www.mcafee.com	Streamlined interface; comes with a lot of extras
Security Essentials	Free	Microsoft	(877) 696-7786	www.microsoft.com	Free but basic; unobtrusive
Internet Security	\$49.95	PC Tools	(800) 764-5783	www.pctools.com	IntelliGuard offers a lot of real-time protection options
Internet Security	\$49.95	Trend Micro	(800) 864-6027	us.trendmicro.com	Plenty of setup options; basic features



This is a fairly basic suite that handles security well and relatively unobtrusively.

All For One, But None For All

It's obvious everyone is better off with an Internet security suite than without one, but there isn't any single best option that suits every user. Microsoft Security Essentials is a terrific free choice but will

frustrate advanced users who want more control. Every package we tested had similarly streamlined interfaces and plenty of settings with which to tinker.

What surprised us during this review is how similar interfaces have become. It used to be a nightmare navigating your way through these types of suites, and now everything has been simplified to the point that even novices should have no trouble getting everything set up and running smoothly. ■

BY TRACY BAKER

SYSTEMS SUPPORTED

F-Secure Internet Security 2010	 XP  Vista  7 Windows 7
Kaspersky Internet Security 2010	 XP  Vista  7 Windows 7
McAfee Internet Security	 Windows 2000  XP  Vista  7 Windows 7
Microsoft Security Essentials	 XP  Vista  7 Windows 7
PC Tools Internet Security	 XP  Vista  7 Windows 7
Trend Micro Internet Security	 XP  Vista  7 Windows 7

Solid Speech Recognition

Dragon NaturallySpeaking 10 (Preferred)

\$199 | Nuance Communications
(781) 565-5000 | www.nuance.com



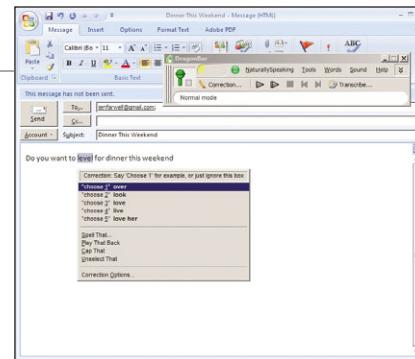
Win7



Windows 2000



WinXP



Speech recognition is one of those glorious experiments that often ends in frustration. Why is it so difficult for a PC to understand us? Given the many tonal inflections of the human voice, it's really not surprising. Nuance Communications has dedicated years to overcoming these barriers, and its latest version of Dragon NaturallySpeaking makes voice recognition easier than ever.

Out Of The Box

NaturallySpeaking Preferred comes as a boxed edition only, as it includes a traditional headset. Installation is straightforward, if a bit lengthy, with setup enabling you to perform minor customizations, if desired. After installation, the wizard examines the user's system configuration to determine the installed programs for which it can enable voice activation. It also makes determinations regarding the features it can support based on processor speed and other performance factors.

Setup prompts the user to run a training session, but also offers the option of skipping this step (not recommended). The default training option is Short; it's the one we chose. During the session, NaturallySpeaking first performs audio volume and quality checks, with the user speaking into the headset. If NaturallySpeaking detects problems with the connection or quality, it will prompt the user to make adjustments.

The next step is the actual speech recognition training—the most important part of setup. Previous versions of

NaturallySpeaking Preferred involved fairly extensive training sessions. With this edition, Nuance has done a good job of minimizing user effort. Users running the Short session choose from a variety of scripts—ranging from work by comedian Dave Barry to an excerpt from "Alice's Adventures In Wonderland."

The user speaks the text into the headset microphone, and Nuance does a good job of following along accurately. (Use the same tone of voice you will employ moving forward—good enunciation helps but is not required.) Afterward, Nuance asks if it can search documents and emails to ascertain writing style (the search is very limited). It also prompts the user regarding ongoing training sessions before completing setup.

Speak Up

When you open NaturallySpeaking, a DragonBar appears as a floating dialog box on your Desktop. The DragonBar alerts the user to microphone status (on or off) and affords access to various features and commands, including transcription of user-recorded texts. Once you have NaturallySpeaking open, text will appear as you speak it wherever you place a cursor, from documents and spreadsheets to email and instant message dialog boxes. You can also surf the Internet via voice and perform searches at a variety of sites.

In our tests, NaturallySpeaking got about 70 to 80% of words right—more over time as we trained it. (The

Key Features: This industry-leading speech-recognition software has been further enhanced to get you up and running with minimal training.

software does better with long words than short ones.) Correcting mistakes is easy, but you may also benefit from a better headset than the one Nuance provides.

NaturallySpeaking is sensitive to context—for example, in "read a book" it correctly interprets the first word as "read" rather than "reed." This release is also capable of handling different dialects and is good with common tech jargon—it correctly interprets such spoken instructions as dot com (.com) and smiley face (the smiley emoticon).

Unfortunately, NaturallySpeaking also interprets coughs, sneezes, and even heavy breathing as text, so turn the microphone off when you are not using it. (This will also ensure you don't hear Windows' system sounds through your headset.) The Preferred edition supports dictation into a handheld recorder, dictation playback, and a few other features not found in the Standard edition. ■

BY JENNIFER FARWELL

Twice The Protection

Double Anti-Spy Professional

Double Anti-Spy Professional operates on the premise that two is better than one. Rather than attempt to incorporate a variety of detection methodologies into a single engine, Avanquest licensed the technology for two award-winning spyware engines and runs them both within a single interface—to your benefit.

As a result, Avanquest maintains, results are better than with a single scanning engine. Avanquest also asserts that antivirus testing firm AV-Test.org found the product detects 99.36% of adware and spyware and 98.12% of Trojan horses.

Key Benefits: Two integrated antispyware engines maximize protection against pesky spyware as well as worms, Trojans, and other PC threats.

This review does not extend to running comparative tests, but we are confident that the scanning engines Double Anti-Spy uses are very good. It offers both email and file scanning, and it has an Active Defense feature that affords real-time protection.

The product installs readily (close running disk utilities and antivirus programs first) and has an easy-to-navigate interface. It can run several levels of scans (in custom locations if

\$29 | Avanquest
(800) 395-668 | www.doubleantispy.com

WinXP Vista Win7



desired) and provides helpful information about what it finds. It also lets you tweak a variety of settings. We found its resource load, especially on the quick scan, to be fairly light. The product doesn't offer a free full trial, but its Run Free Scan option gives you a limited, 14-day trial (so you can see how the interface works before buying). **II**

BY JENNIFER FARWELL

A Digital Notebook

OneNote

According to Microsoft, OneNote is “a place for gathering, organizing, searching, and sharing notes, clippings, thoughts, reference materials, and other information.” Think of it as a digital notebook—where you can drop conversations, snippets of data, screen grabs, tables, and more. Then, you can organize the data into notebooks, sections (and section groups), pages, and subpages.

In OneNote, elements you place appear in boxes you can drag around the page, rearranging them to suit your needs. You can also drag and drop external material—audio and video files, Outlook contacts and email messages, and other valuable reference sources, straight into

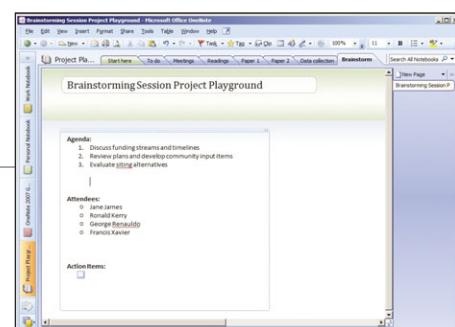
Key Features: OneNote’s flexible structure affords control over how information is managed. Tagging and search features help users find what they need.

OneNote pages. Material that won’t drag and drop (an open Photoshop file, in our tests) you can copy and paste in.

Of course, all of this can end up as note soup unless you structure the information, which OneNote’s tagging system enables you to do. Use the tags OneNote provides or create your own, and then sort material by tags to get a logistical view. OneNote has other nifty features, such as the ability to share notebooks with others—or yourself on multiple computers. If you

\$99.95 | Microsoft
(800) 642-7676 | office.microsoft.com

WinXP Vista Win7



frequently save (or lose) important scraps of information, give OneNote a spin. If you own Office 2007 Home and Student or Ultimate, you already own a copy of OneNote. If not, download the free 60-day trial. **II**

BY JENNIFER FARWELL



COMPILED BY JOSEPH MORAN

Windows News

Windows 7 Behind Saks Fifth Avenue's Holiday Windows



Saks Fifth Avenue's flagship store has long been known for its decorative holiday window displays. In 2009, the displays had an added dimension thanks to a partnership with Microsoft.

For the 2009 holiday season, the store's extensive window displays featured 20 Windows 7-powered HD (high-definition) video screens showing animations from a Saks holiday children's book called "Twinkle, Twinkle Little Flake." The store also added a customer lounge complete with Windows 7 PCs and Microsoft experts fielding product questions.

Saks Fifth Avenue holiday shoppers could relax and try out Windows 7 in the store's Microsoft-sponsored lounge.

Windows 7 Family Pack Offer Ends Well Before Holidays

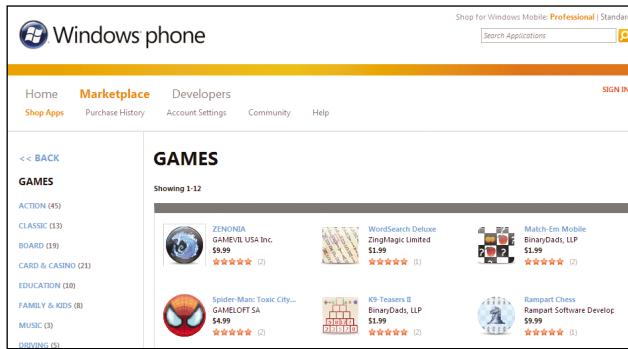
Although it was always advertised as a limited-time offer, Microsoft's bargain-priced Windows 7 Family Pack (three Windows 7 Home Premium upgrade licenses for \$150) turned out to be much more short-lived than some expected.

Copies of the family pack began disappearing from store shelves and online retailers as early as the week after Thanksgiving, putting a damper on the holiday shopping plans of those looking to take advantage of its \$210 discount compared to the cost of three Windows 7 copies purchased individually (\$120 each).

In December 2009, Microsoft's official family pack Web page listed the product as "sold out," and there's no word on whether Microsoft intends to revive the offer.

Owners of older Windows Mobile-based phones can now purchase apps from the Windows Mobile Marketplace.

Windows Mobile Marketplace Now Open To 6.0 & 6.1 Devices



The screenshot shows the Windows Mobile Marketplace website. The top navigation bar includes links for Home, Marketplace, Developers, Shop Apps, Purchase History, Account Settings, Community, and Help. The user is signed in. The main content area is titled "GAMES" and shows a grid of game icons with their names and developer information. The games listed are: Zing-Maia (GameVil USA Inc., \$9.99), WordSearch Deluxe (ZingMagic Limited, \$1.99), Match-Em Mobile (BinaryDroids, LLP, \$1.99), Spider-Man: Toxic City... (GAMEROFT SA, \$4.99), K9-Tessers II (BinaryDroids, LLP, \$1.99), and Bumpart Chess (Bumpart Software Develop FBA, \$9.99).

The Windows Mobile Marketplace, the online app store launched with the latest round of Windows Mobile 6.5-based phones, is now available to those running earlier 6.0- or 6.1-based devices.

You can download the Windows Mobile Marketplace software to an older phone by pointing its Web browser to mp.windowsphone.com or browse the available apps from any PC by visiting marketplace.windowsphone.com.

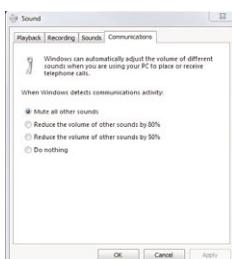
Windows Tips

Override Windows 7's Automatic Volume Reduction

You may have noticed that when you use voice chat programs on your Windows 7 computer (Windows Live Messenger, Skype, etc.), the volume level of any other audio drops substantially, making it easier for you to hear and be heard above the background sounds. Just as you might reach to turn the TV volume down whenever the

phone rings, Windows 7 does the same thing and automatically reduces the volume of other sounds by 80% when it detects you're engaged in a call.

To override Windows 7's default volume reduction setting, search for "change sound" from the Start menu and then choose Change Sound Card Settings and click the Communications tab. Here you'll be able to specify that sounds be muted, reduced by 50%, or not adjusted at all. The last setting may come in particularly handy when playing online games that include voice chat.



Back Up Or Synchronize Folders With SyncToy (Windows XP, Windows Vista, Windows 7)

If you're looking for a simple way to back up important files or synchronize files across a pair of folders, Microsoft's free and recently updated SyncToy utility can help. You can download the latest version of SyncToy (2.1) from tinyurl.com/3k8swj. Note that there are two different versions of the utility available—if you have a 64-bit version of Windows, download the version with "x64" in the file name; otherwise, download the x86 version. (When you install SyncToy, the wizard may first need to install some underlying software called Microsoft Sync Framework and Provider Services, which requires an Administrator account.)

Now run SyncToy 2.1 from the Start menu, click Create New Folder Pair, and then browse for both a left and a right folder. The left folder is the one that contains the files you want to back up or synchronize, while the right folder is the location where you want those files to be replicated. (Use the Make New Folder button if you want to specify a folder that doesn't exist yet.)

After you've chosen your folder pair, click Next and tell SyncToy what you want it to do. For example, if you want to create a set of files to work with and modify from another computer (say, by copying them to a USB flash drive), choose Synchronize, which will replicate any new, changed, renamed, or deleted files in both directions. By contrast, if you simply want to create a copy of a folder for backup purposes, choose the Echo option; it only replicates changes from left to right, ensuring the right folder is always a mirror image of the left. (The third option, Contribute, is similar to Echo except it doesn't delete files in the right folder when you do it in the left folder.)

Finally, name your folder pair and click Finish. To sync a folder pair, highlight it and click Run, or click Preview to see a list of files due for updates before any changes are made.

Microsoft News

MSN Gets An Extreme Makeover

Microsoft is giving the MSN.com home page its first major facelift in more than a decade. The familiar blue-hued and cluttered home page is getting a revamped design featuring lots of white space and, according to Microsoft, 50% fewer links.



Aside from the aesthetic improvements, the new MSN.com includes a section dedicated to local information; the ability to customize the page with social networking content from Windows Live, Facebook, and Twitter; and, of course, a prominent Bing search box.

The revamped MSN.com is being rolled out gradually and is expected to be widely available early this year. If you're not seeing it by the time you read this, you can check it out at preview.msn.com.

Microsoft Readyng Shared Windows Server For Schools

In the first half of this year, Microsoft is set to release a new "shared resource" operating system for educational use. Designed for institutions with limited technology budgets, Windows Multipoint Server 2010 will allow multiple students to share a single computer but work as if each was using his or her own individual PC.

Windows Multipoint Server 2010 is designed for use in places such as classrooms, labs, and libraries, and will provide each student with a "station" consisting of a personal monitor, keyboard, mouse, headset, and Windows Desktop. It will also provide teachers a way to manage student accounts and distribute material to them.



Windows XP Get To Know Your Clipboard

The copy and paste function in Windows is surely one of computing's simple pleasures. Whether you're editing a paragraph of text, arranging photos or video, or moving a line of code, the copy and paste commands make everyday tasks a whole lot easier. And using the copy and paste keyboard shortcuts (CTRL-C for copy; CTRL-V for paste) shortens the whole process to a matter of seconds.

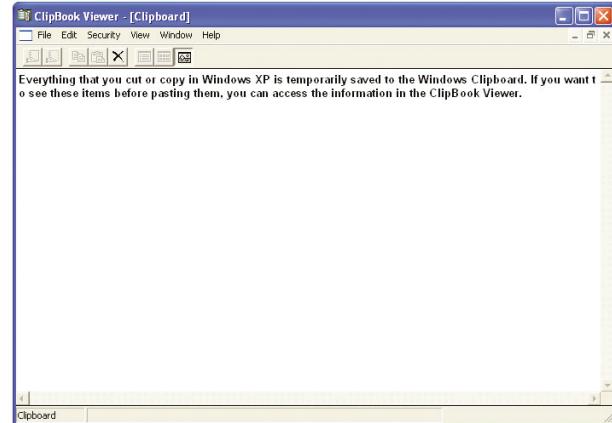
Everything that you cut or copy in Windows XP is temporarily saved to the Windows Clipboard. If you want to see these items before pasting them, you can access the information in the ClipBook Viewer. We'll show you how to access and use the ClipBook Viewer and make the most of these useful functions, and we'll also show you how to use the Clipboard that comes with Microsoft Office 2007.

Open The Book

By default, you won't be able to access the ClipBook Viewer from the Start menu, but you can add it if you want. You can also use the Windows Run command or create a shortcut. We'll show you how to do each option. To use the Run command, click Start and then click Run. In the Open text box, type **clipbrd** and then click OK or press ENTER. You should now see the ClipBook Viewer window. Anything that you have recently copied or cut will appear here.

Everything that you cut or copy in Windows XP is temporarily saved to the *Windows Clipboard*.

To create a shortcut to the ClipBook Viewer, right-click any open space on your Desktop and choose New and then Shortcut from the pop-up menu. In the Create Shortcut dialog box, type **%windir%\system32\clipbrd.exe** in the blank location field and click Next. On the next screen, you should see the word "clipbrd" or "clipbrd.exe" in the name field. You can keep that as the shortcut name or create your own name. When you are done, click Finish. Now you should see



The ClipBook Viewer stores items you cut and copy from anywhere within Windows XP to be pasted in a new location when you're ready.

a Clipboard shortcut on your Desktop. Simply double-click it any time you want to open the ClipBook Viewer.

If you want to add the ClipBook Viewer to your Start menu, you can easily do so by clicking Start and then clicking My Computer. Double-click the C: drive icon to access your hard drive file and then double-click the Windows folder. Locate the System32 folder and double-click it. If you receive a message saying that the contents of this folder are hidden so that you don't mess with them, go ahead and click the link that says Show The Contents Of This Folder. Now locate the Clipbrd file. Once you find it, just drag it with your mouse and drop it right on top of the Start button.

Using The Viewer

The ClipBook Viewer holds information until you clear it or cut or copy another item. Once you cut or copy something new, what was there previously is replaced with the most recent item. The total amount of information the Viewer can hold is based on your computer's memory capacity. If you're receiving a lot of error messages about your computer's memory while cutting or copying, you probably need to add more RAM to your computer.

To clear the contents of the Viewer, simply click the Delete button in the toolbar at the top of the screen. This will clear everything in the Viewer once you click Yes. You can also access the Delete command from the Edit menu.

The Local ClipBook

The ClipBook Viewer in Windows (previously known as the ClipBoard Viewer) originally included additional

advanced features that allowed users to connect to a local ClipBook. This ClipBook appeared as a window alongside the Clipboard. Users could save items from the Clipboard to a local ClipBook page and then share these pages across a network with other users. However, in Windows XP, Microsoft disabled these advanced features for security reasons. That's why the Edit and Security menu items are grayed out.

Despite these limitations, the ClipBook Viewer is a handy way to view items you have cut or copied.

Microsoft Office Clipboard

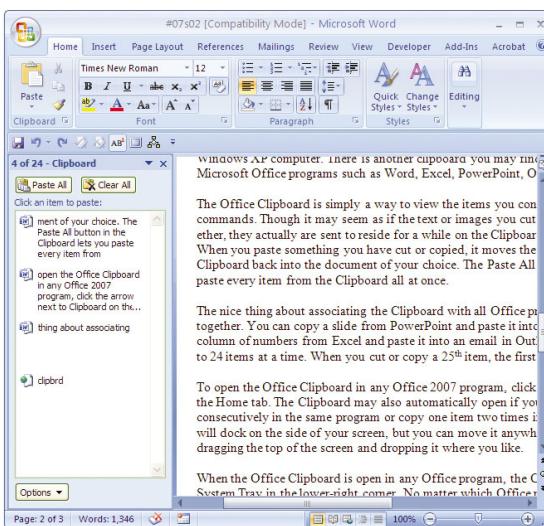
The ClipBook Viewer lets you work with information you've cut or copied anywhere on your Windows XP computer. There is another clipboard you may find useful associated only with Microsoft Office programs such as Word, Excel, PowerPoint, Outlook, and Access.

The Office Clipboard is simply a way to view the items you control with the copy, cut, and paste commands. Though it may seem as if the text or images you cut magically disappear into the ether, they actually are sent to reside for a while on the Clipboard, awaiting further instruction. When you paste something you have cut or copied, it moves the item most recently added to the Clipboard back into the document of your choice. The Paste All button in the Clipboard lets you paste every item from the Clipboard all at once.

The nice thing about associating the Clipboard with all Office programs is that they all work together. You can copy a slide from PowerPoint and paste it into a Word document or cut a column of numbers from Excel and paste it into an email in Outlook. The Clipboard will store up to 24 items at a time. When you cut or copy a 25th item, the first one will drop off the list.

To open the Office Clipboard in any Office 2007 program, click the arrow next to Clipboard on the Home tab. The Clipboard may also automatically open if you cut or copy two different items consecutively in the same program or copy one item two times in a row. The Clipboard window will dock on the side of your screen, but you can move it anywhere you like by clicking and

dragging the top of the screen and dropping it where you like.



By default, the Office Clipboard appears on the side of the screen, but you can dock it wherever you like.



Creating a shortcut to the ClipBook Viewer is a simple way to avoid having to use the Run dialog box to open the utility.

When the Office Clipboard is open in any Office program, the Clipboard icon will appear in the System Tray in the lower-right corner of your screen. No matter which Office program you're working in, you can click this icon to access the Clipboard. Note that just because the Clipboard is open in one program doesn't necessarily mean it will be open in another. You can still cut, paste, and copy between programs, though, and open the Clipboard in the Office program of your choice by choosing it from the ribbon.

The Options button at the bottom of the Clipboard window lets you further control the way you access and view the Clipboard. If you would prefer that the Clipboard never open, make sure there is a checkmark in front of the Collect Without Showing Office Clipboard option by clicking it. Then remove the checkmarks in front of the Show Office Clipboard Automatically and Show Office

Clipboard When CTRL+C Pressed Twice options.

There may be a few instances in which you won't be able to copy or cut items to the Clipboard. If you have used the maximum amount of memory allowed for items in the Clipboard (1/16 of the computer's total physical memory), you won't be able to add more. This may happen if you are working with especially large items. Try clicking the Clear All button in the Clipboard to clear the items you have stored there before cutting or copying a large piece of information. (Alternately, you can right-click an item and choose Delete from the pop-up menu to clear just one thing at a time.) In addition, if you are trying to copy or cut something with an unsupported file type, you won't be able to add that to the Clipboard either.

Becoming familiar with the Office Clipboard and ClipBook Viewer will give you even more options as you work with the information on your computer. ■

BY JENNIE SCHLUETER



Windows Vista

Get To Know The Ease Of Access Center

Windows Vista includes an Ease Of Access Center to allow people with disabilities to better use the OS (operating system). You can configure how Vista magnifies on-screen objects and text; enable a narrator to read aloud on-screen content; adjust the contrast to make windows easier to see; and teach Vista to recognize voice commands. So if you're looking for an easier way to use your PC and reduce eye strain, take some time to check out this step-by-step guide.

Prerequisites

Depending on which features you want to use, you may have to invest in some accessories to make the feature work. For example, people who want to hear text read aloud by Vista will need speakers or headphones, while those who want to control the OS using voice commands must set up a microphone. For all of our instructions, we'll assume that you've already opened the Ease Of Access Center by clicking the Start button, selecting Control Panel, and double-clicking Ease Of Access Center in Classic view. To open the Ease Of Access Center using your keyboard, hold down the Windows Logo and *U* keys. If a feature isn't in the Ease Of Access Center, we'll provide separate directions.

All The Better To See You With

Click the Make The Computer Easier To See link and you'll be able to improve the appearance of content on-screen from the resulting window. If everything on-screen seems too small, click the Turn On Magnifier checkbox. Once you click Apply, Vista will bring up the Magnifier window, where you can configure how large the magnified content will appear and where the Magnifier is docked. You can position the window on the top, bottom, left, or right of the screen.

If you have an easier time reading light text on a dark background, you may want to click the Invert Colors checkbox to make text in the Magnifier window stand out. It's also possible to change Vista's typical color scheme to a high-contrast background. If you'd rather just

switch to the high-contrast scheme when you need it, you can simultaneously press the left ALT, left SHIFT, and PRINT SCREEN keys. To switch back, hold down the same key combination.

You can also control which actions the Magnifier will follow. By default, the Magnifier follows your mouse, keyboard actions, and text-editing cursor. If you prefer, you can configure it to follow a single option, such as your mouse. For example, if you want to concentrate on the text in a word processing document, you may want to select only the Follow Text Editing checkbox. You can also drag the window edges of the Magnifier dock to resize it, but the larger the dock, the smaller the rest of the screen will appear.

Once you've set up the Magnifier, scroll down to the Make Things On The Screen Larger section. Click Change The Size Of Text And Icons and select Larger Scale (120 DPI). You'll need to restart your PC before the changes will take effect. If text and icons still aren't large enough, click Custom DPI and drag the ruler to the right. Watch the text beneath it increase until you find the DPI size you prefer. The Make The Computer Easier To See window also offers a Make Things On The Screen Easier To See section, where you can adjust the color of borders, change display effects, and alter other background options. If you have trouble seeing the cursor, click the drop-down menu



The screenshot shows the Windows Ease of Access Center window. At the top, there's a section for 'Make the computer easier to see'. Below it, the 'Magnifier' section is open, showing settings for 'Turn on Magnifier' (checkbox checked), 'Follow mouse' (checkbox checked), 'Follow keyboard' (checkbox checked), and 'Follow text editing' (checkbox checked). The 'Change the size of text and icons' dropdown is set to 'Larger scale (120 DPI)'. The 'Custom DPI' section shows a slider at 120. The 'Make things on the screen easier to see' section is partially visible at the bottom. The background of the window shows a news article from FOXSports.com about Nebraska's coach Suh.

The Magnifier tool in Vista can help you read text and view Web pages.

next to Set The Thickness Of The Blinking Cursor to enlarge it. By default, Vista sets the cursor thickness at 1, and you can increase the cursor up to 20 times the default size.

Listen To The Narrator

If you have trouble seeing the screen, you may prefer to hear what's happening by using Microsoft Narrator. Simultaneously press ALT and N to start Narrator. After you start Narrator, you can configure what and how the program reads aloud.

Narrator will begin by reading for you. There are options for telling you what keystrokes you press, reading system messages, and playing announcements when the screen scrolls. If you click the Voice Settings button, you can use the drop-down menus to configure the speed, volume, and pitch of the read text. There are a number of keyboard shortcuts you can use to specify text that Narrator will read. The list can be found at tiny.cc/7Lrm2.

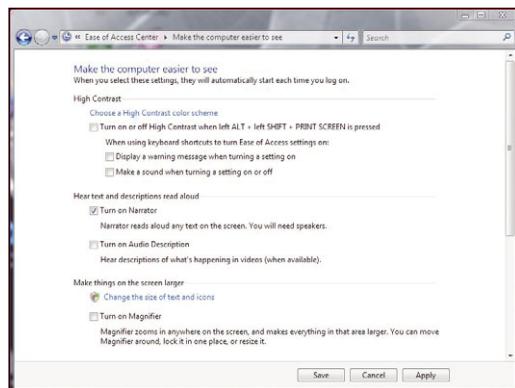
Visual Notifications

If you have a hearing impairment or no speakers, you'll want to consider changing the sound alerts in Vista, such as those that sound when a program is done installing or encounters an error, to display on-screen. Click Use Text Or Visual Alternatives For Sounds, select Turn On Visual Notifications For Sounds (Sound Sentry), and select the type of visual warning you prefer. The various options list which part of the screen Sound Sentry will flash when Vista displays a system alert. If you want to make applications display captions for spoken words (note that this only works with compatible programs), you can select the Turn On Text Captions For Spoken Dialog (When Available) checkbox.

Speak To Vista

The Windows Speech Recognition software in Vista allows you to use voice commands to open and switch between applications, click links, and control the OS, as well as dictate documents to compatible Microsoft Office applications.

Click Use The Computer Without A Mouse Or Keyboard, select Use Speech Recognition, and Vista will open the Set Up Speech Recognition wizard. First, you'll select what type of microphone you have and set up the volume. If Vista isn't hearing your microphone, it will indicate that you should reposition the microphone and try again.



After you set up Microsoft's Narrator, Vista will read the on-screen text to you.

After your microphone's volume is configured correctly, the wizard will ask if it can review the documents and email on your computer to learn the words and phrases you most commonly use. Click Enable Document Review to allow Speech Recognition to examine the content. At the Print The Speech Reference Card window, Vista recommends you print out the Speech Reference Card, which is a list of commands that you'll find convenient for reference while you're learning how to control

your PC by voice. For example, to launch Internet Explorer, you'd say "Open Internet Explorer." Or to click something you don't know the name of, say "Show numbers," and numbers will appear on the screen for every item you can select, and you can say the number and "OK." Note that if you're having trouble figuring out what to say, you can speak "What can I say?" and Vista will load the Speech Recognition help page with a collapsible list to help you out.

After Speech Recognition is set up, the wizard offers lessons to help you learn and practice commands. If you find that your PC is still having trouble understanding you, open the Use The Computer Without A Mouse Or Keyboard, select Use Speech Recognition, and choose Train Your Computer To Better Understand You. Using The Speech Recognition Voice Training wizard, you can read to Vista, and Windows will familiarize itself with the rate and volume at which you speak. You can configure Speech Recognition to run at bootup, but if you'd prefer to have it listen at only specific times, you can manually start the application. To do so, click the Start button, select All Programs, choose Accessories, click Ease Of Access, and select Windows Speech Recognition. ■

BY NATHAN LAKE

Virtual Keyboard

If you have mobile impairment that keeps you from using the keys on a keyboard, try the on-screen keyboard built into Vista. Go to the Ease Of Access Center and select Start On-Screen Keyboard. Vista will load a keyboard that's set up the same as a regular keyboard, but with virtual keys. People who have difficulty pressing the keys can click the on-screen characters using a mouse. ■



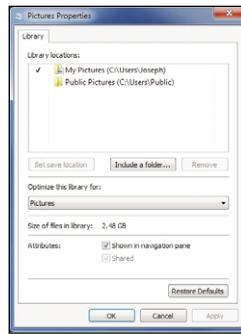
Windows 7

Libraries Put Personal Files Within Reach

Windows 7, like Windows Vista and Windows XP before it, gives each user a set of personal folders in which to store and organize data files such as documents, pictures, music, video, and so forth. But sometimes it's not possible or practical to save everything in your personal folder. You may need to keep certain files in the Public folder, for example, and/or want to take advantage of the storage capacity on a separate internal or external hard drive. When your important files are stored all over your system like that, keeping track of their locations—so you can find files when you need them—can be somewhat daunting.

Fortunately, Win7 offers a solution to this problem that you won't find in its predecessors—it's the Libraries feature, which gives you one place to manage and access a group of related files that happen to be stored in lots of different places. A library looks and acts much like a folder—just as with a folder, you can open a file from or save a file to a library. But unlike a folder, a library doesn't actually store any files. Instead, a library tracks the contents of a group of folders from different locations, allowing you to access them as if they were all within the same folder.

Win7 includes four built-in libraries, labeled Documents, Music, Pictures, and Video, and each of them tracks two different locations—the user's personal folder and the public folder for the file category. The Documents library, for example, includes both the My Documents and Public Documents folder. Every library also has a default save location, where any file that's saved or copied into a library will automatically be stored. The default save location for each of Win7's built-in libraries is the relevant user account folder, so for the Documents library it's the My



Right-click a library and select Properties to add/ remove folders or change the default save location.

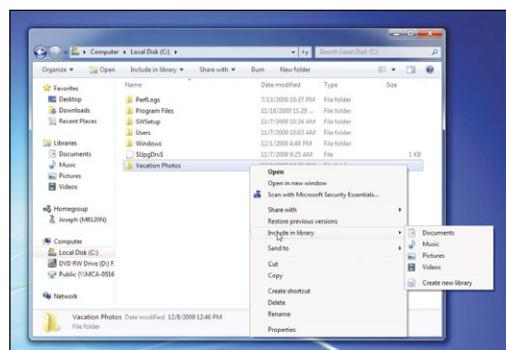
Documents folder, and for the Video library, it's the My Videos folder.

Viewing Libraries

There are several ways to access libraries in Win7, but one of the easiest is through the Start menu. There, on the right side under your name, you'll find links to three of the four standard libraries—Documents, Pictures, and Music. Another option is to launch Windows Explorer (such as by clicking its Taskbar button), to open a window showing all of the libraries. (When Windows Explorer is already running, you can find the libraries via the left-side navigation pane.)

When you select a library, you'll see a comprehensive listing of all the folders that are part of it, irrespective of where they're actually stored. You can also narrow the view down to show only the files inside a specific folder within the library; just click the arrow to the left of the library's name in the navigation pane to expand the list of folders and then click on the folder you want to see.

You can change how Windows Explorer displays a library's contents just as you can when viewing the contents of an old-fashioned folder. The More Options button (the down arrow in the Menu bar that's directly under the search box) will let you choose different views such as small, medium, or large icons, list, details, etc. When viewing a library, the Arrange By drop-down menu gives you a way to change how the contents are sorted. The options offered depend on the type of library you're looking at; for example, you can sort the Pictures library chronologically by the day or month a snapshot was taken and sort the Music library by characteristics such as artist name or song title.



Right-click a folder and choose Add To Library to make it part of an existing or new library.

Customizing Libraries

Win7's four standard libraries are pretty handy right out of the box, but they become even more so when you customize them by adding your own folders. Whenever you are viewing a library in Windows Explorer (make sure the library itself is selected, not a folder within it) you'll see an **Includes: 2 Locations** or similar link right under the library name. To add a folder, click that link, and a window will appear listing the folders that are currently part of the library. Then click the **Add** button, browse to the folder you want, and click **Include Folder**. (Take note of the **Remove** button, as well, which we'll discuss further in a bit.)

Another way to add a folder to a library is to right-click one in Windows Explorer and select **Include In Library**. When you do, a pop-out menu will list all the libraries; click one and the folder will automatically be added to it. (NOTE: *When you highlight a folder in Windows Explorer, the Include In Library menu also appears in the menu bar.*)

Any folder on a system's internal or external hard drive can be added to a library, but folders on a CD or DVD can't be part of a library, nor, in most cases, can folders from a USB flash memory drive.

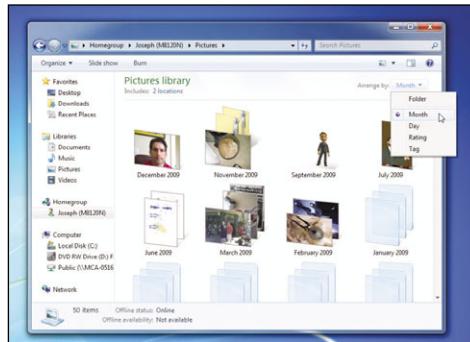
Create Your Own Libraries

Did you notice that the **Include In Library** menu also includes a **Create New Library** option? When you use it, Win7 will set up the selected folder within its own new library. If you create a new library this way, it will automatically inherit the folder's name, but you can rename the library by right-clicking it in Windows Explorer and selecting **Rename**.

Another way to create a brand new library is to select the **Library** heading within Windows Explorer's navigation pane and then click **New library** in the menu bar. This will create a new library labeled (appropriately enough) "New Library," which you can type over with the name of your choice. To add folders to a library you just created, double-click it, click the **Include A Folder** button, and browse for a folder.

For obvious reasons, the first folder you add to your new library will automatically become the library's default save location. You're free to change the default save location of any library, however, including the ones that come with Win7. To do so, right-click a library and select **Properties** to see a list of the library's folders. The folder with the check mark is the current default save location; to change it, highlight a different folder and click **Set Save Location** to relocate the check mark.

When viewing the **Properties** of a library, you'll also see an option labeled **Optimize This Library For**, which



Use the **Arrange By** menu to sort the contents of a library various ways.

determines the sorting options available under the library's **Arrange By** menu. Four of these choices correspond to the four standard library types, plus there's a fifth choice, **General Items**, that's useful when your library includes multiple content types. (For example, you could create a library that includes both photos and videos from a recent vacation.)

Library Tips

Keep in mind that because libraries are only links to folders and not folders themselves, you're free to remove a folder from a library (recall the **Remove** button we cited earlier) or delete a library entirely without affecting the underlying files—they'll still be there, just no longer part of the library. On the other hand, deleting a file or folder from a library will send it to the Recycle Bin. It's also worth noting that a folder can be part of more than one library, and a library can contain up to 50 folders.

By the way, if you accidentally delete any of the four standard libraries, you can bring them back to life by right-clicking **Libraries** and selecting **Restore Default Libraries**.

Win7 libraries give you the freedom to keep files wherever you want or need to and still keep tabs on them as if they were all under one roof. ■

BY JOSEPH MORAN

Libraries On A Home Network

A side from being a convenient way to keep personal files organized, libraries can also be used to share files on a home network via a Win7 homegroup. When you create or join a homegroup, you have the option to share any of the four standard libraries so they're available to other Win7 PCs on the network. To check if a homegroup is set up and whether any of your system's libraries are shared, search for and run **homegroup** from the Start menu.

You're also free to share any new libraries you create; just right-click a library name in Windows Explorer, select **Share with**, and then choose **Homegroup (Read)** or **Homegroup (Read/Write)** depending on the type of access you want to provide.

If you add a new folder to a library that's being shared, a window will appear asking if you want to share the folder as well. If you choose **No**, the folder will become part of your library, but won't be available on the network. ■

DIY PROJECT

Use Dual Monitors



The movie buffs, video editors, and gamers among us tend to buy the bigger displays they can afford. Those 24- and 30-inch screens maximize their enjoyment of their favorite computing activities.

That said, the rest of us would appreciate some extra screen space, too. We may not necessarily need one monolithic display the way video and game junkies do, so our options are more open.

Fortunately, Windows makes it easy to hook up a second monitor for an instant Desktop expansion, assuming that your computer has enough video outputs. Dual monitors let you multi-task more easily. You can offload windows you prefer to keep open all the time—social networking sites, email inboxes, music player controls—to a secondary display while you concentrate your attention on the tasks on your primary monitor.

Windows XP

Most users still have WinXP, so we'll detail this process most fully for the venerable OS (operating system).

1 Connect the new monitor to one of your computer's video outputs with a DVI (Digital Video Interactive) or other appropriate video cable, such as VGA (Video Graphics Array), HDMI (High-Definition Multimedia Interface), DisplayPort, or even USB (DisplayLink). On a desktop PC, the output might be on the motherboard or a graphics card. A notebook might have an output along its rear or side edge.

2 Plug the new display into a surge-protected AC power outlet. Turn it on.

3 Right-click a blank part of the Desktop and select Properties. This will bring up the Display Properties panel. Click the Settings tab. The number 2 screen represents your new monitor; click it to highlight it.

4 By default, WinXP assumes that the second display is physically sitting to the right of your primary screen. If it's not, click and drag the number 2 screen to match the location of the new monitor.

5 With screen 2 highlighted, click Extend My Windows Desktop Onto This Monitor and Apply. If your

new display doesn't automatically show your PC's Desktop wallpaper, press its Input Select button a time or two. Don't worry if the wallpaper appears with an extremely low resolution and a very limited number of colors; WinXP is simply using low settings for compatibility with as many unknown monitors as possible.

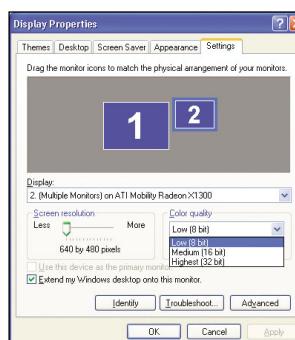
6 If the new monitor still doesn't display anything, you may need to enable your PC's video output port in its BIOS (Basic Input/Output System) Setup. Restart your computer and keep an eye out for a brief message, such as Press F2 To Enter Setup or similar. Quickly press the indicated key; if Windows' Desktop appears, reboot and try again. In Setup, use the indicated keys to move through the menus and enable the video port. Save your changes and exit Setup.

7 Next, you should install the latest driver for your monitor. It's best to download it from the manufacturer's site and follow the related instructions. However, if the display came with an installation CD, you can get by with the driver version on the disc. Windows might also provide a good driver,

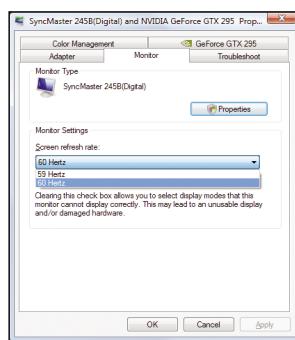
too; press WIN (the Windows logo key) and the PAUSE key simultaneously and then click the Hardware tab. Click Device Manager and then double-click Monitors. Right-click the new display and click Update Driver. Let Windows connect to Windows Update to find a suitable driver and finish the wizard.

8 It's time to adjust the new monitor's video properties. Drag the Screen Resolution slider to the native pixel count for the secondary display, such as 1,920 x 1,200 or 1,400 x 1,050. Next, change the Color Quality drop-down menu to Highest (32-bit) and then click Apply. If everything looks fine on the new monitor, click Yes.

9 Next, click Advanced. Under the Monitor tab, select the secondary display, if it's listed under Monitor Type. Set the Screen Refresh Rate to the maximum provided by the manufacturer, such as 72Hz, for the resolution you set. The reason you should use the highest refresh rate you can is to cut down on screen flicker. Never exceed the manufacturer's recommended maximum, however, or you could hurt your display or graphics card. (Enable the Hide Modes That This Monitor Cannot Display checkbox, if you can, to keep yourself out of trouble.) Note that many LCD monitors are limited to 60Hz as their top resolution, unlike old CRT (cathode-ray



By default, Windows XP sends a video signal with a low resolution and color depth to the secondary display for compatibility reasons. Use Display Properties to adjust these to the new monitor's native capabilities.



This Windows Vista settings panel shows you where to change your new monitor's refresh rate to avoid eye-straining flicker. Use the highest setting the manufacturer recommends but don't exceed it, or you might damage your new display.

tube) displays. Fortunately, most LCDs don't seem to cause as much eye strain at this refresh rate as the older tube monitors. Click Apply and OK twice, and you're done.

10 Move the mouse pointer off the edge of your primary screen toward your new monitor. It should seamlessly appear on the secondary display. If not, repeat the click-and-drag monitor location setting in Step 4.

Windows Vista

The procedure in Vista is similar to WinXP's but with a few minor differences.

Right-click an unoccupied area of the Desktop and then select Personalize and Display Settings. Click screen 2; if necessary, drag it to your new display's physical location in regard to screen 1 (your main monitor).

Finally, click Extend The Desktop Onto This Monitor, Apply, and Yes. You may need

to press your new display's Input Select button to enable it to "see" your Windows Desktop. If the screen remains blank, follow Step 6 in the WinXP directions above.

Install your new display's driver according to WinXP's Step 7. Your best option is to install the manufacturer's newest driver for your specific monitor model and OS. Vista's generic driver might be fine in most cases, but if you want to look for a more recent driver from Microsoft, you can click

Device Manager immediately after pressing WIN-PAUSE.

Next, adjust the Resolution slider to your new display's native resolution as directed above. Set the Colors menu to the best color palette available, such as Highest (32-bit). Now, click Apply and Yes.

Finally, click the Advanced Settings button and the Monitor tab. Choose the highest Screen Refresh Rate listed in the new monitor's manufacturer's specifications for the resolution you're using and click Apply and OK twice.

Windows 7

Here's a refreshing turn of events: Win7 did all the work for us. After we plugged in our second monitor, Win7 detected it, installed a driver (for our specific make and model, we might add), extended our Windows Desktop to it, and optimized its screen resolution. It's hardly worth writing about; everything just worked.

If you're so inclined, of course, you can tweak Win7's display properties as we detailed above for WinXP and Vista. Right-click an empty patch of Desktop and then select Screen Resolution. You will be able to adjust most of the properties we've already talked about. Explore the drop-down menus and you'll find interesting options such as setting the two monitors to show the same image, turning a rotatable display to portrait mode instead of landscape, and so on.

Wide-Open Spaces

Now that you've doubled your screen real estate (or more), watch out: It's easy to become spoiled. The next time you use someone else's computer with only a single monitor, you'll immediately start to miss all that wonderful elbow room. ■

BY MARTY SEMS

Ebooks Enter A New Era: Consumer Enthusiasm Drives Market



For much of December 2009, online superstore Amazon.com displayed a prominent advertisement on its site that read: "Kindle. The #1 Bestselling, #1 Most Wished For, and #1 Most Gifted Product on Amazon." No mere sales ploy for ebooks and the company's ebook reader, this advertisement reflected a very real explosion in the popularity of the industry. According to the AAP (www.publishers.org), as of September 2009, ebook sales had increased 176.1% year-to-date.

Forrester Research's (www.forrester.com) Sarah Rotman-Epps and James McQuivey, PhD, predict that eBook revenue will continue to explode. "Considering the growth rate of eBook trade sales, we think it's reasonable to project overall eBook revenue will top \$500 million in the US in 2010," the duo reports on the Forrester Blog for Consumer Product Strategy Professionals.

So what's all the excitement about? Ebooks in some form have been in existence for quite awhile—the concept

of digitizing books and other text dates back to at least 1971 and Project Gutenberg. This volunteer effort to digitize and archive cultural works is widely recognized as the world's oldest digital library. However, recent advances in both reading devices and content appear to be helping ebooks gain mainstream momentum.

The E Train

Everyone is publishing ebooks these days, it seems, and many of them are free. Harlequin published 16 of its tomes as free ebooks (www.harlequincelebrates.com) as part of its 60th birthday celebration. The World Digital Library (www.wdl.org/en) offers free, multilingual access to a variety of digitized international works on its site. The Rare Book Room (www.rarebookroom.org) offers a number of rare books in PDF (Portable Document Format) or image format.

These are just a few of the many entities that are publishing free ebooks—for an excellent list of others, visit drscavanaugh.org/ebooks and click the Online Book Libraries link.

The biggest and most enthusiastic epublisher is undoubtedly Google, which for several years has been working with public libraries and authors and publishers (currently more than 20,000, per Google) to digitize or acquire, if already digitized, books—both copyrighted and public domain (those that have lost their copyright protection). Google Books (books.google.com) debuted in 2004 (under the name Google Print); today, readers can preview or search the full text of—and usually purchase or acquire—more than 7 million books on the site. Of these titles, more than one million are free ebooks, many of which are out of print and difficult to find in hard copy. In 2009, both Sony and Barnes and Noble reached agreements with

Amazon.com proudly displayed the success of its Kindle reader during the 2009 holiday season.

Google to make many of the public domain books available at their ebook stores, as well.

Initially, Google Books engendered ire on the part of authors and publishers, and in 2005, the Author's Guild, the AAP, and a group of authors and publishers filed suit against Google Books. However, Google settled the lawsuit, and, in November 2009, the court granted preliminary approval of the settlement. Now, Google says it is working with these entities to make even more titles available, and Google is selling subscriptions to libraries, universities, and other institutions.

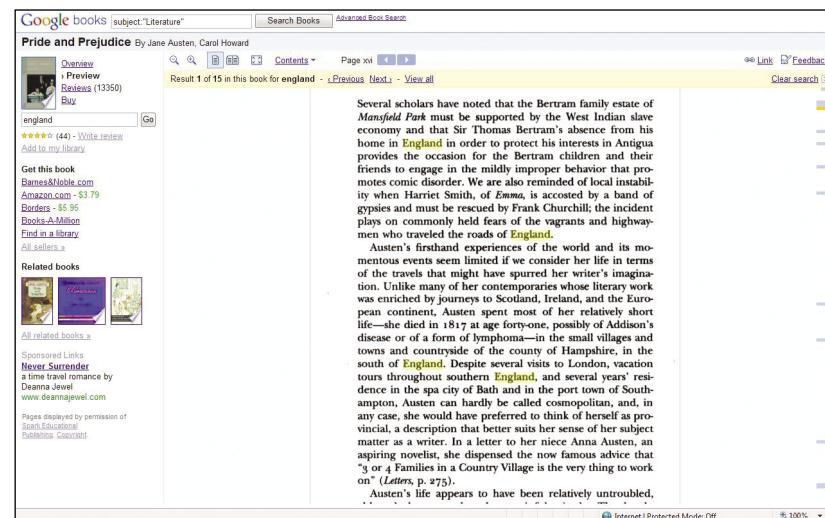
This approach will give more people access to its ebooks and provide a compensation stream for authors and publishers. As its mission statement asserts: "Google's mission is to organize the world's information and make it universally accessible and useful."

New Age Reader

With many ebook providers, the term "publish" is not quite accurate. Rather, convert and secure would be a better term. In order to make money with ebooks—and protect the rights of copyright holders—several companies have developed proprietary formats that incorporate digital rights management into the ebook files. They then make these files available as ebooks on their sites. Amazon.com offers nearly 400,000 titles. Barnes and Noble and Sony lump their proprietary-format files in with public domain-format files; both offer more than a million titles, in total.

These files can be displayed on compatible ereader devices as well as on a user's PC (always Windows; sometimes Mac), and depending on the provider, possibly on other devices, as well. Amazon.com was far from the first ereader provider—early versions debuted more than a decade ago, and Sony released its first Reader device in 2006.

However, Amazon.com set the world on fire when it debuted its Kindle ereader in November 2007. The



Google Books offers an extraordinary library of ebooks, most of which consumers can search—or at least preview.

device sold out almost as soon as it hit the store and continued selling out into 2009, with purchasers being advised to sign up in advance to receive the product weeks—or in some cases months—later. Kindle revolutionized ereading, offering a smorgasbord of options that readers liked.

These included keyword searches across the user's entire ebook library, automatic online backups, the ability to make notations via a built-in keyboard, and other juicy features. The reader made a significant impact at Amazon.com, as well—by Q3 2008, Amazon.com CFO Thomas J. Szkutak announced that "Kindle titles already account for more than 10% of unit sales for books that are available in both digital and print formats."

Love At First Sight

Kindle and its brethren are undoubtedly changing the way some readers access books. "We love them," says Jennifer Weishaupt, a New Orleans entrepreneur. Weishaupt uses an early edition of the Sony Reader (\$199.99 to \$399.99 at www.sonystyle.com, depending on the version) her husband, Eric, bought for her birthday in 2007. "He immediately

stole it, so I bought him one for Christmas," she says. Now, both Weishaupts read books digitally.

Weishaupt says she is amazed that the experience on her Reader is so book-like. "For the first week, I kept trying to turn the page with my hands," she says. "I kept forgetting it was an electronic device." Weishaupt says she reads about one ebook per week. "I have read only one traditional book since I got my Reader, and that was because the battery died," she says. That occurrence aside, Weishaupt says battery life is generally excellent on her ereader. "We went on vacation to Costa Rica," says Weishaupt. "I read my ebook for five days; four to five hours a day, and it held the charge." (Using Wi-Fi or 3G wireless, one or both of which many newer readers offer, shortens battery life considerably.)

Librarian and law student Laureen Lentz, who says digitizing books is a "critical" task for the world, agrees with Weishaupt—mostly. "I have read ebooks off my computer, but I did not enjoy reading the book [that way]," she says. "I [prefer] the Kindle. I like the versatility of having the [digital] option." Portability is another aspect of ebook readers that gives them an edge over traditional books.

"The Kindle is great because you can drag tons of reading material around with you easily in your bag," says Lentz. By tons, Lentz means anywhere from 200 books (the number Weishaupt's two-year-old Reader holds) to 1,500 books (in Amazon.com's 2009 ebook reader, the Kindle 2). However, Lentz still enjoys traditional books.

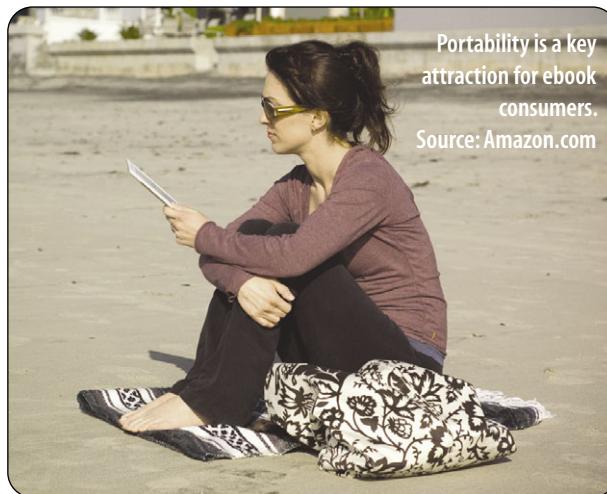
Wish Lists

Ereaders are small computers (though their screens differ), and users are beginning to view them as such. Atlanta ebook reader Rex Williams, who says he was drawn to ebooks because "I can enlarge the text and I don't have good close-up vision," says he would like to check email on his ereader, as well. This dovetails with the results of a survey released in September 2009 by research firm In-Stat (www.instat.com). "Current ebook owners desire email capability in the next [ereader] they purchase," says Stephanie Ethier, In-Stat senior analyst.

However, Forrester researchers Rotman-Epps and McQuivey predict functionality expansion in 2010 will be bidirectional, with more mobile phones, netbooks, and other devices being optimized for ebooks and ereaders picking up additional functionality, including touchscreens and applications for popular pursuits such as social networking.

Who's Reading What

With most purchased ebooks costing \$9.99 and 45% of ebook readers spending between \$9 and \$20 a month (per In-Stat), sales of \$18.5 million in October 2009 (per the IDPF [International Digital Publishing Forum; www.idpf.org] and the AAP) still mean a lot of people are reading ebooks. (These figures also don't include free ebooks.) So, who are they,



Portability is a key attraction for ebook consumers.
Source: Amazon.com

and what are their habits and desires? The 2008 PubTrack Consumer Survey by bibliographic information provider Bowker found that only 45% of Americans read books of any sort. Of those, 58% are women. (Americans, on average, spend 3.9 hours per week reading books; 15 hours online.)

According to a presentation given by four book industry veterans at the O'Reilly Tools of Change for Publishing conference (February 2009; New York, N.Y.), ebook publishers have been targeting this prime market—women—for more than a decade. The presentation debuted the results of a survey that indicated the majority of ebook readers are women between the ages of 30 and 50. They also determined that most readers buy and read two to five ebooks per month.

The presentation also detailed a number of frustrations readers experience, foremost of which was a lack of titles (and their cost) and the proprietary, rights-managed file formats that prevent users from moving ebooks between devices or loaning them to others. "Digital Rights Management (DRM), generally insisted on by publishers, has been largely rejected by consumers," writes John W. Warren in *The International Journal of the Book*. "Buyers of e-books feel that they should be able to use a purchased e-book on any device they own, not to mention lend it to friends or family members."

(Barnes and Noble has partially addressed the "loaning" issue with its new ereader, the nook. A user can loan titles—dependent on publisher's permission—to others for 14 days, during which time the title will not be available on the user's device.)

Future Cast

The IDPF and the AAP report that U.S. sales have risen from \$5.8 million in 2002 to \$53.5 million in 2008. As of Q3 2009, sales were \$110 million, year to date. The IDPF also notes that "Retail numbers may be as much as double the above figures due to industry wholesale discounts."

Even with these impressive figures, ebook sales are not taking a bite out of traditional book sales yet. According to the AAP, book sales tracked by the group for September 2009 (the most recent data available at press time) increased by 12.3% to \$1.26 billion and were up 3.6% for the year. Of that total, ebook sales accounted for \$15.9 million; a mere 1.3% of total book sales. By contrast, the Adult Hardcover category alone jumped by 74.1% in September, with sales of \$302.4 million—nearly 20 times that of all ebook categories, combined.

These statistics point to a continuing love affair between readers and "dead-tree" books. This affair, paired with reader frustrations with ebook formats and functionality should keep traditional paper books in action for the foreseeable future. Nevertheless, states Warren, "In the future, e-books may evolve into a wholly new form that we cannot fully envision today. This future will arrive as publishers and authors add enhancements and interactivity, embrace new business models, and explore new methods of collaboration, and as readers engage with these new forms." ■

Many of our readers come across fast, easy ways to solve a problem or accomplish a task. Well, we'd like to hear about it! If you have a great tip you'd like to share, email us at readertips@smartcomputing.com. If we print your tip, we'll send you a free *Smart Computing* T-shirt. You'll be the envy of all (well, some) of your friends.

Please include your first name, last name, and address, so that we can give you credit if we print your tip. (And so that we can send your T-shirt to you, of course.) Please limit your tip to 200 words or fewer. Not all tips received will be printed, and tips may be edited for length and clarity.



ClipMate

One of my favorite programs is ClipMate (\$34.95; www.thornsoft.com) from Thornsoft. It allows me to copy long keys, registrations, or full pages of information. Simply find the info you want to copy and highlight it or choose Select All to copy the entire page. Unlike Clipboard in Windows, the information will stay in ClipMate as long as you want. Open the program and you can find a list of your copied text. It's also better than Notepad

Show Desktop

In the "News From The Help Desk" article in the October 2009 issue, you told us how to restore the Show Desktop icon to the Quick Launch toolbar so that you can quickly minimize all your open windows and view the Desktop. For me, it's easier to use the keyboard shortcut. Simultaneously press the Windows logo and D keys.

Paul K., Grand Blanc, Mich.

Remove Reflection In Photos

Photographing coins, glass objects, jewelry, and other objects with strong reflections is difficult. You can make a light diffuser (a white cloth that will allow light to get through) to reduce or remove the mirror images. You'll need a couple of small lamp reflectors and some wood or wire frames to hold the cloth in front of the reflectors. Place the object you want to photograph on a surface with a suitable contrasting background, such as cloth or paper.

Cecil C., Calumet, Mich.

for copying long sections of text because the program automatically saves your clips, and it features an easy-to-use interface when searching for specific content.

Genelle P., Oklahoma City, Okla.

Boom Box Modification

I was looking to upgrade the sound from my computer, and after trying a few sets of speakers, I realized that I had an old—but still good—boom box with a Line In input. I purchased a Y audio cable (ministereo-to-RCA stereo plugs), and the sound is excellent. I can even listen to the radio or play tapes when I don't need to hear sound from the computer.

Gord M., Calgary, Alberta, Canada

Computer Cleaning Tip

When cleaning the keyboard on my laptop and desktop PC, I use a disposable dental floss pick with a soft bristle brush. Because the brushes are soft and bendable, they are perfect for getting in, under, and around the keys.

Kathleen D., Oxford, N.C.

Faster Browsing

After opening a new tab in your Internet browser, you don't need to move your mouse to the Address bar to open a Web site. Just enter the Web site name (assuming it ends in ".com"), such as Gmail, hold down the CTRL key, and press ENTER. It's fast, and there's less chance of a typing error. If the Web site doesn't end in ".com," you'll need to type the full URL.

Va D., Deerfield Beach, Fla.

Short & Simple Tips To Make Things Easier

Virtualization, Revisited

Parallels Has A Brand New Bag

Being able to virtualize one OS (operating system) on top of another, thereby effectively letting you use more than one operating system simultaneously, is a powerful way to ensure that no matter which platform you're currently using—Windows, Mac, or Linux—you have a safety net of sorts, a way to use that old or rarely used operating system without the need for a second computer.

For example, lots of folks who switch from PC to Mac find that there are one or two applications or tools that they still just prefer (or, in a few cases, need) to use on the PC. Virtualization lets them run an instance of a Windows operating system on top of their Mac OS.

Parallels is a solid player in the virtualization market and has been around for a long time. It's been awhile since we looked at Parallels in this space, but it's high time we revisited the software—especially in light of the new Parallels Desktop Switch To Mac Edition.

Switching

What separates the Switch To Mac edition from the regular Parallels 5 software is that the former includes tools to help you not only virtualize an OS but to migrate your old OS, folders, and programs to your new computer. Obviously, those switching from PC to Mac are prime candidates.

Granted, switching to a Mac isn't difficult in and of itself, but Parallels lets you take your whole other computer with you, as well, and sets you up with a convenient virtual computer that looks and feels identical to your old computer.

The software tools involved include Parallels Transporter (which is installed on the host computer—in this case, your new Mac) and Parallels Transporter Agent (which is installed on the source computer—in this case, your older PC), in addition to Parallels Desktop.

Also included in the package is a special USB cable that lets you connect two computers to transfer your old data to your new machine. Unlike a regular USB cable, this special USB cable is able to connect two computers together without any disastrous repercussions. You can differentiate it from a regular USB cable by the chunky knob in the middle; that's where the necessary technology resides.



Product Info
Parallels Desktop Switch To Mac Edition
\$99.99
Parallels
(425) 282-6400
www.parallels.com

How Is This Different From Boot Camp?

There are two primary differences between Parallels and Boot Camp. One is that Parallels costs a bit of cash, while Boot Camp is free and comes preinstalled on your Mac. The other difference is that Boot Camp lets you dual-boot, which means that you can have more than one operating system on the same hard drive, but in order to access the second OS, you have to restart the computer and boot into the new operating system.

Parallels doesn't dual-boot. Rather, with one OS running, you can launch the other OS without having to restart the computer, and you can easily toggle back and forth between the two. It's a little more convenient than having to reboot every time you want to use a different operating system.

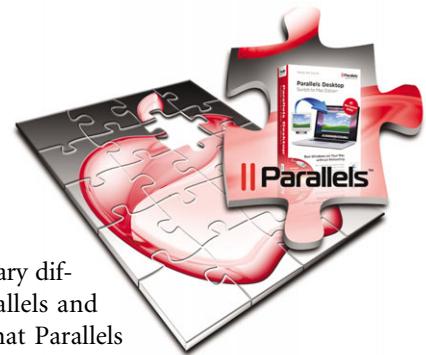
The downside to running a virtual computer in this manner is that you're effectively running two computers on one computer's hardware, which will somewhat hamper performance. When you dual-boot with Boot Camp, the computer only runs one OS at a time, so you're always getting the best performance your computer can muster.

How To Use It

There are three ways that Parallels lets you migrate data from one computer to another: via the special USB cable, over your home network, or by using an external hard drive. All three methods are easy enough to do, but the USB cable should be the fastest (unless one or both of your USB ports aren't USB 2.0).

Although the process can appear complicated, if you just follow the on-screen directions—in order—you should have no trouble migrating the data. Do set aside a good chunk of time to do it, though, as you may have to wait hours (depending on the amount of data you're sending) for the migration to finish.

When the migration is complete, you can simply open Parallels when you want to use your new virtual machine. The first time you launch it, Parallels will configure it for you. You'll need to be on hand to click through some screens. Then, you'll be able to seamlessly switch between using two different operating systems whenever you want. ■



Mac Corner

Apple Bugs

You got a Mac because of its legendary ease of use. But it's true: Even in paradise there are weeds in the garden. As you compute with your Mac, you'll probably run into some issues that annoy you or stop you altogether. Herein you'll find some of the most common nits that we've run into over the years.

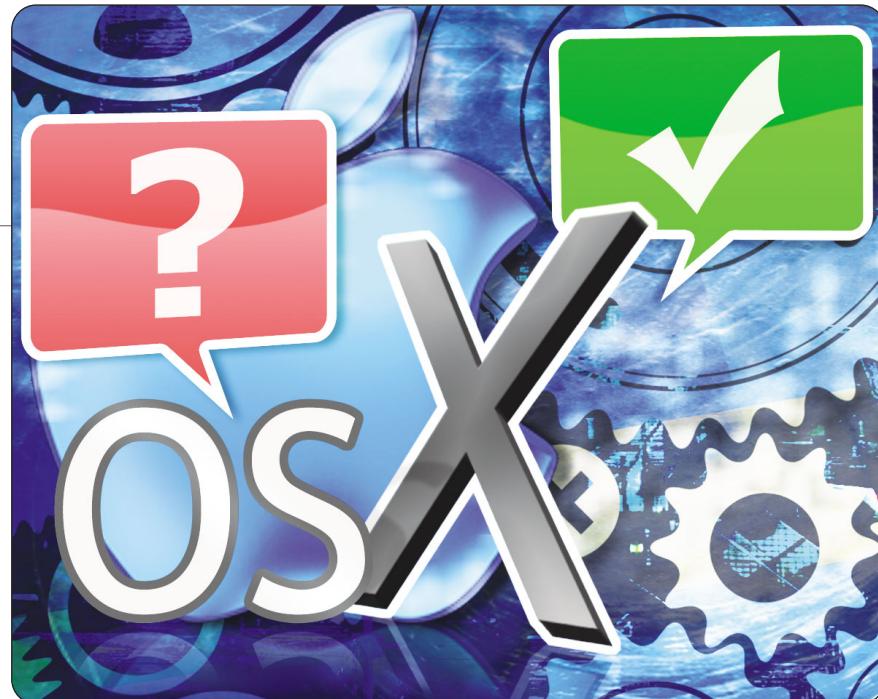
Hardware

One of the great benefits of owning a Mac is the knowledge that you're buying some of the best hardware in the industry; Apple consistently rates well in hardware quality. But it's not all roses when it comes to the gears and switches that make your Mac run. Let's look at some of the ways that you can run afoul of the hardware.

Problem: Sluggish performance.

Solution: You're trying to get work done on your Mac, but applications lag behind your mouse input. You see the spinning rainbow beach ball, and the interface becomes less responsive. In most cases, this is due to a shortage of memory to run your applications.

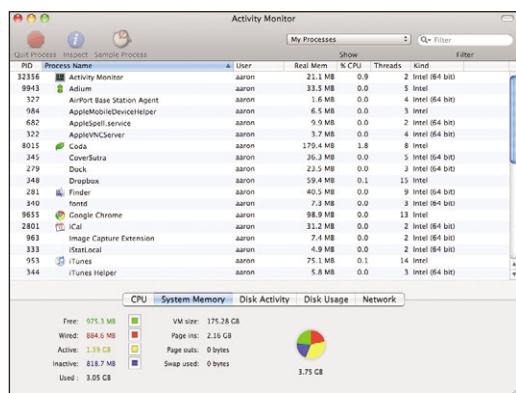
Every program that you open takes up a slice of the RAM (random-access



memory) that you have installed in your Mac. And the amount of space that gets eaten depends on the programs you're running and the tasks they're performing. If you start seeing these slowdowns, you can start by closing applications that you aren't using.

You can take the guesswork out of your memory usage by cracking open the Mac's built-in Activity Monitor application. (Find it by choosing Go, Applications, Utilities, Activity Monitor.) The list shows all running applications, with a column called Real Memory, showing the amount of your RAM being taken up. When you click the System Memory tab at the bottom of the window, you'll even see a fancy pie chart of how your memory is being used.

Of course, if you consistently find yourself running short on memory, consider a RAM upgrade: It's the single most effective way of boosting



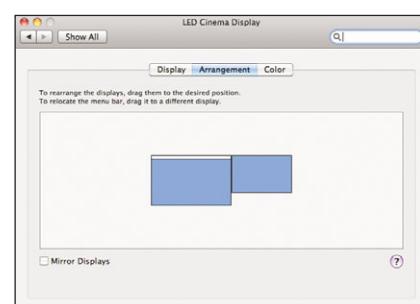
Activity Monitor shows your running applications, how much of your CPU they're using, and how much memory they take up.

your Mac's performance, for not that much money.

Problem: You're having difficulty detecting a second monitor.

Solution: Every current Mac comes with a video-out port, to which you can attach a second monitor or projector. But what happens when you plug that display into your Mac, and the unexpected occurs?

First, understand what you want to do. The Mac can work with a second display in one of two modes: mirrored mode shows the same picture on both displays, while screen-spanning mode



The Monitors preference pane allows you to arrange a second display and toggle between screen spanning and mirroring.

adds extra screen real estate. You may prefer the former method for doing presentations through a projector, but the latter when you're adding a display to your desktop.

While the Mac will normally do the right thing when a display is connected, you sometimes have to tweak the settings. Go the System Preferences application and choose Displays. Under the Arrangement tab, you'll find the checkbox for Mirror Displays, which controls which method you'll use. In this spot, you can also control the relationship of the screens in screen spanning mode and even determine which screen acts as the "home" screen by moving the menu bar between screens.

Problem: You're unable to view WMV (Windows Media Video) files.

Solution: You may be on a Mac, but your friends and relatives are still using Windows, and they have a bad habit of sending videos in Microsoft's Windows Media Video format. These WMV files can't be played by a Mac out of the box, but the good news is that you can install some free software that will play these videos perfectly.

While Microsoft used to develop a Windows Media Player for the Mac, it later outsourced that task to a company called Flip4Mac. It makes a software component that allows the Mac's native QuickTime Player to run WMV files. It's the best possible solution: With a simple software install, you'll be able to view these files just as you would with the regular supported formats.

To get the software, visit tinyurl.com/hr9on, click the Free Download button, and then click a second Download button.

Problem: You can't print a document.

Solution: Printing can be a real challenge on any platform. The introduction of Apple's newest operating system, Mac OS X 10.6 Snow Leopard, takes a lot of the pain out of the process by automating the installation of printer drivers (the software that allows

your Mac to talk to your printer). But sometimes, problems can still ensue.

The most likely culprit is a misconfigured or corrupted print setting, and in that case the best solution is to simply drop the printer configuration and re-create it. In the System Preferences application, go to the Print & Fax panel, select the problem printer from the source list on the left, and click the small minus sign to remove it from your settings. Then click the plus sign to add the printer again.

If that doesn't help, you can employ the nuclear option: right-click (or CTRL-click) your printer, and choose Reset Printing System. You'll be asked to confirm the move, and you'll then have a completely fresh printing system, ready for you to use.

Problem: iPhoto opens when a camera is connected.

Solution: Any time you plug a camera into your Mac, up pops iPhoto. And yes, your iPhone counts as a camera, too. Chances are, you don't want this behavior, and you'd give anything to stop it.

The cure for this issue is in the most unlikely of places; not in System Preferences as you might expect, but in a little-known application called Image Capture. Find it by selecting Go, Applications, and Image Capture. Once open, you'll see a list of all devices currently connected to your Mac as well as any photos on them. With a device selected on the left, ensure the Options

pane is open by clicking the small triangle at the bottom of the window. Then select the option No Application under the label Connecting This [device] Opens. Ahh, peace and quiet when you connect your camera.

Problem: Your Apple Remote triggers all Macs.

Solution: If you have multiple Macs in your household, you may have run into a glitch with the Apple Remote. A single Apple Remote can control any Mac in its range. So if you take your MacBook to the couch and use the remote to navigate the AppleTV, you'll find yourself frustrated when your MacBook starts playing a song in iTunes.

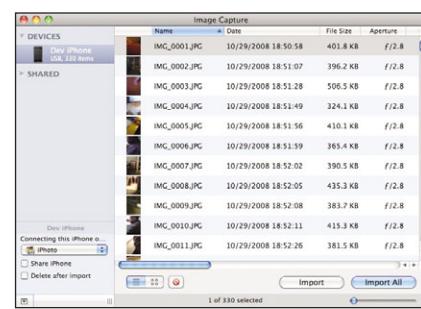
The solution is to pair your remote with a given Mac. In System Preferences, go to the Security panel. There you'll find a Pair button. When you click that button, you'll be instructed to hold the remote close to your Mac and then hold down the Menu and Next buttons until a lock graphic appears on-screen. Once done, only that remote will be able to control your Mac, and you can couch surf with impunity.

Software

The nice thing about hardware problems is that they are usually easy to diagnose; software isn't so simple. But there are some persistent quirks in the Mac OS that you'll probably run into from time to time. Here's a list of the ones that come up most often and what you can do.

Problem: An application hangs.

Solution: You'll be working away in one of your programs when, for perhaps no apparent reason, it stops responding. Mouse clicks, key presses, and foul language all fail to get that application working again. The Mac is a true multitasking system, which means that your other applications can be working just fine while the culprit freezes. But when you mouse over a frozen app, the cursor turns into the "spinning rainbow of death."



When you plug in your digital camera or iPhone, use Image Capture to control what program opens as a result.



When your program hangs, Force Quit will pull the rug out from under it, letting you get back to work.

From its earliest days, the Mac OS has included a feature called Force Quit. When your program stops responding, you can either choose the Force Quit command from the Apple menu, or use the Command-OPTION-ESC keys. (The Mac's long-standing answer to Windows' "three-fingered salute.") In the dialog box that appears, select the misbehaving application and click the Force Quit button. This is the Mac's way of pulling the rug out from under the application, closing it immediately. Of course, any unsaved work will be lost, so make sure your program is actually frozen before attempting.

When complete, you can relaunch the application, and you should be able to continue working as before.

Problem: You are having difficulty opening files in particular applications.

Solution: Let's say you have more than one image-editing program on your Mac. A friend sends you a JPEG (Joint Photographic Experts Group) file, and you double-click it. Which program will open the file? The answer depends on its file association. While you might normally be OK with the option that the system chooses for you, you may also want to change it.

First, select the file whose type you want to ensure opens in a given application. Let's say we want to make sure that all PNG (Portable Network Graphics) files open in Preview instead of Photoshop. Choose File and Get Info (or press Command-I) to show that file's Info window. Look

for the Open With section, which includes a drop-down menu of applications that can handle the selected file type. Then, choose the application that you want to open this file with.

The change made here affects only this file; others of the same type will continue to open in their default application. However, the Change All button below the drop-down menu will ensure that every PNG file on your Mac opens in Preview.

Problem: Disks won't eject.

Solution: If you have an external drive (such as a CD drive, USB key, or external hard drive) connected to your Mac, you've probably run into this quirk. You'll be working with a file on that drive, and when you try to eject it, you won't be able to, with a message about applications using files on that drive. Up until Mac OS X 10.6, the Mac has been surprisingly mysterious about what application is responsible for holding onto the drive. If you're still running 10.5 Leopard or older, you'll have to start quitting applications until you're able to eject the disk. But if you're running Snow Leopard, you'll now be told which application is responsible; quit it, and you should be good to go.

Problem: You need to reset the admin password.

Solution: You've forgotten your password. And you need it to install a new program. The Mac is secure enough that you can't route around this one. Instead, you'll need to reboot your Mac off the DVD that came with your computer and use the Reset Password utility.

First, insert the install DVD into your drive, then restart your Mac, holding down the C key to boot off the optical drive. Once the Mac starts up off the DVD, you'll be asked to choose a language, and then you'll see a menu bar. From the Utilities menu, choose Password Reset. You'll see a window that allows you to select

a hard drive, a menu for choosing a user, and text fields to enter the new password. Ensure that you are choosing your user account—do not select System Administrator (Root). Click Save, and then you can reboot back to your Mac. Don't forget that password again!

Problem: Spotlight indexes external hard drives when you don't want it to.

Solution: When you connect an external hard drive to your Mac, you'll find that the little Spotlight icon in the top-right corner of your screen starts flashing, and the new hard drive is kicking into high gear. Spotlight, the Mac's system-wide search service, is busily indexing the contents of that drive. It's a process that takes up space on your hard drive and slows down your computer at the same time.

But you can prevent this from happening by telling Spotlight that you don't want to index this drive. Open System Preferences, choose Spotlight, and select the Privacy tab. Just drag the drive onto this list, and Spotlight will happily ignore the drive.

Problem: You have too many addresses in Mail.

Solution: When you create a new message in Mail, you might start by typing someone's name in the To field. Mail helpfully supplies all the matching suggestions. Does this list seem surprisingly long, full of names you don't recognize? Mail presents the addresses in your Address Book, of course, but it also keeps a list of every person you've ever received an email from. Over time, this list can grow out of control.

In Mail, choose Window and Previous Recipients. You will find a long list of email addresses, many of which you may not recognize. Just select the ones you do not want and then click Remove From List. Problem solved. ■

BY AARON VEGH

Web Tips

Enhance Your Time Online

Correct Photo Blemishes

Problem: I want to remove flaws from my digital photos. Is there a fast and easy way to do this online?

Solution: If you don't want to use a complex photo-editing suite, you can take advantage of PicTreat (www.pictreat.com), a photo-enhancing tool that corrects colors and blemishes on portraits. To edit your photo, click the Get An Instant PicTreat Click Here button. Next, upload an image from your computer by browsing and then clicking Upload. If you're happy with the results, you can choose to resave the image to your PC, crop it for social networking sites, or post to popular sites such as Twitter and WordPress. You don't have to sign up to use PicTreat, but you can choose to register in order to save photos and albums and create high-resolution images (requires purchasing credits).

Step-by-Step Necktie Tying

Problem: I know there are plenty of ways to tie a necktie, but I need instructions for many of them.

Solution: Instead of always defaulting to a Windsor knot, learn a few unique or unfamiliar styles of tying your necktie at 2tieatie.com. In the Aesthetic Tie Knots

section, you can select from 15 different knot-tying styles, each of which includes step-by-step pictorial instructions. You'll also find accompanying YouTube videos embedded on the instructional pages. In addition to necktie how-tos, you can glean some tie advice such as how to care for a tie, choose a tie, and clean a polyester tie.

Get The Facts On Sugar

Problem: I think there is too much sugar in my diet. How can I determine the amount of sugar I consume?

Solution: Sugar content will no longer be a mystery once you visit Sugar Stacks (www.sugarstacks.com). Sugar Stacks uses 4-gram sugar cubes to represent the amount of sugar in everything from beverages to desserts to sauces to vegetables. (It doesn't differentiate between types of sugar such as sucrose, fructose, corn syrup, etc., however.) For instance, if you're curious about the amount of sugar in two frosted cherry Pop Tarts, click the Breakfast Foods link—there are 34 grams of sugar in two of these toaster pastries, which equals 8.5 sugar cubes. Possibly the most intriguing sugar calculation is the Thanksgiving dinner. You'll have to visit Sugar Stacks to

see how much sugar you're consuming during your large annual meal.

Form Habits

Problem: I want to form a healthy habit, but I need the accountability to follow through with it.

Solution: Habitforge (www.habitforge.com) exists for this very purpose. Outlined in three steps, Habitforge asks you to name your challenge, check your email, and keeps you committed to the goal for 21 days. For example, you can set a goal to stop smoking, and Habitforge will send you an email asking you if

use Habitforge in monitoring mode.

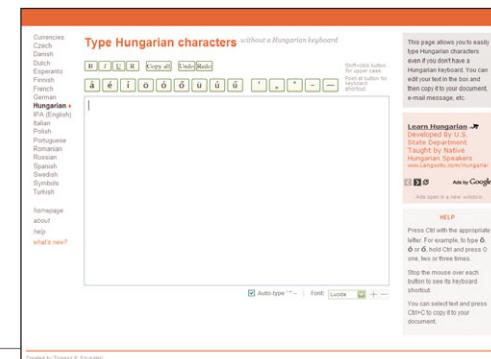
Multi-language Keyboard

Problem: I like to communicate with friends online who speak foreign languages. How do I easily create text with foreign characters?

Solution: Foreign languages include many special characters and accents that aren't found on standard American keyboards. Many times you have to remember alphabetical and numerical shortcuts (which can actually be more complicated) to create characters.

TypeIT (www.typeit.org) cuts down on the number of steps it takes to make a foreign character. You'll choose one of the available character sets for a particular

You can use TypeIT to add foreign characters to text for sending messages to friends or family in a variety of languages.



were successful at not smoking for that particular day. When you check the email, you'll select Yes or No based on how well you did. Habitforge won't let you skip days. If you miss a day, it will start you back at day one. When you reach 21 days, you'll hopefully form the new habit and be able to

language and insert letters and symbols wherever necessary. On the Home page, you can click one of 19 languages to open a new text page window. You'll notice several familiar functions, including bold, italics, and redo, among others. ■

BY JOANNA SAFFORD

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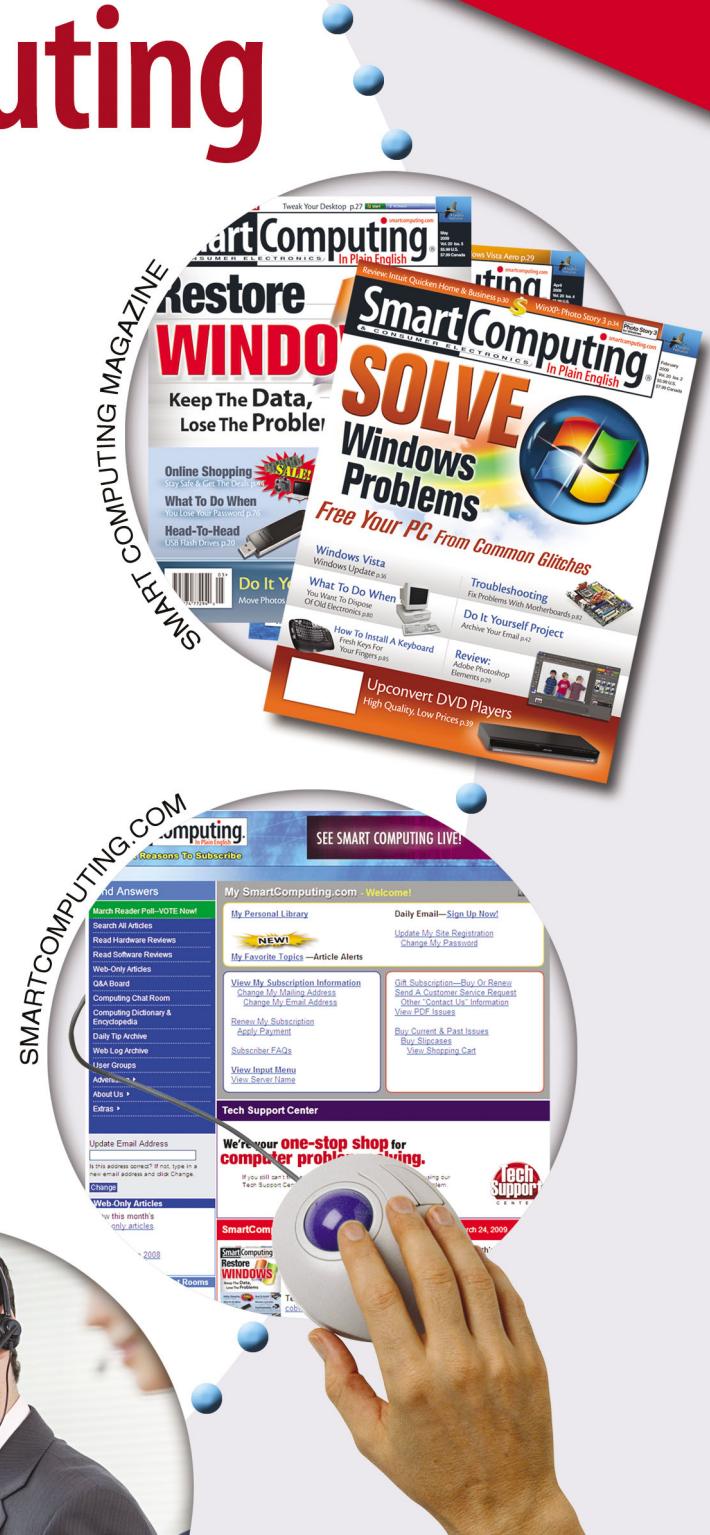
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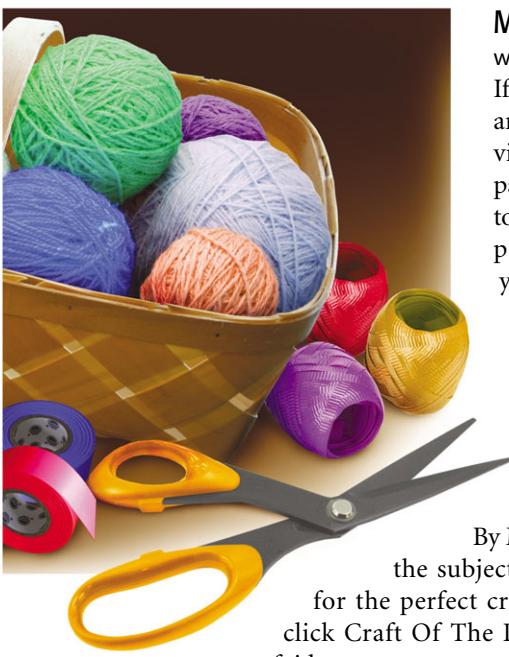


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Find It Online

Get Crafty On The 'Net



By Material and then browse the subjects on the resulting page for the perfect craft. If you can't decide, click Craft Of The Day for a random daily craft idea.

Etsy

www.etsy.com

If you've ever thought about making a profit from your handmade crafts, this site can help you get started. By clicking Sell at the top of the main page, you can learn about

Martha Stewart

www.marthastewart.com

If you're feeling crafty but aren't sure what to make, visit this site. On the main page, click the Crafts link to go to the crafting ideas page. On the left side, you'll find various craft categories such as Scrapbooking & Memory-keeping and Kids' Crafts. Search for a craft that interests you by clicking Crafts By Technique or Crafts

how, for a small fee, you can list and sell your one-of-a-kind crafts to other Etsy members and visitors. Clicking the Buy tab at the top of the main page lets you browse other members' goods. Search for a specific item in the Search bar or use the Categories link to narrow your choices.

AllCraftSupplies.com

www.allcraftsupplies.com

Not finding what you're looking for at your local craft store? This site offers supplies in various categories, including Scrapbooking Supplies, Art Supplies, Sewing & Quilting Supplies, and more. To find a specific material, use the Search field on the main page or mouse over the category links at the top of the page and choose one of the results from the dropdown list.

MakingFriends.com

www.makingfriends.com

Next time the grandkids are over for a weekend visit, entertain them with crafting ideas from this site. On the main page, search for an activity by using the category boxes at the top of the page. You can search by material, theme, holiday, or recipient. Some crafts offer patterns for you to follow, while others have kits that you can buy for an entire group of crafters. This site also features a store that offers the supplies you'll need to make many of the crafts found on the site.

That's NEWS To You

Finding the appropriate online group to match your interests can be a monumental task. So each month, we scour the Internet to bring you the friendliest forums and most interesting bloggers the Web has to offer. This month, we show how people just like you are sharing and selling their crafts on personal blogs and Web sites.

PurrPrints

www.purrprints.blogspot.com

This blog, created by a crafter named Rebecca, shows that anyone can create, share, and sell their crafts online. Many of this crafter's projects are made specifically for cat-lovers, but Rebecca includes mention of other crafters and projects in each of her blog entries. She sells her cat-centered crafts on several craft and creation sites, including Etsy, Cafepress, and Zazzle.

PurrPrints Online Store

Etsy Cafepress

Friday, December 4, 2009

Newsletter

Find out about giveaways, sales, and new designs without having to leave your inbox - and get the chance to participate in the exclusive monthly photo contest, open only to newsletter subscribers. Leave your email to receive the (rocking, no-more-than-once-a-month, no spam or unsubscribe required) newsletter.

<http://purrprints.blogspot.com/>

Feature Friday: TheClayShoppe

So besides my obvious weakness for cats, I also have two less obvious weaknesses for adorable-ness from the animal world: owls and hedgehogs.

Don't ask me why, I don't get it either. But I do. I guess I just fall into some kind of weird indie stereotype, because I see cute owl and hedgehog stuff on etsy regularly, and it makes me whimper with joy.

Yes, I know, the idea of a 30 year old woman whimpering with joy over an embroidered

Care Wear

www.carewear.org

If you know how to knit, crochet, or sew, you can help hospitals provide clothing and blankets to infants and children and their parents. By choosing Patterns from the menu on the right, you can use your skills to create hats, booties, gowns, blankets, toys, and more and then donate them to a hospital near you. To find out if your local hospital is accepting donations, click Hospitals from the menu and then search by your state.

I Love To Craft

www.ilovetocraft.com

There are countless crafting ideas available on the Internet. This site offers a few more. Browse craft ideas by clicking the categories at the top of the main page or by scrolling down to the Free Craft Projects section on the main page. Choose by craft type or theme, such as Holiday Crafts, Knitting, or Wedding Crafts. At the top of the main page, you'll find the Featured Craft Project, with the Newest Crafts and Most Popular crafts listed below.

Crafts, Etc!

www.craftsetc.com

With this site, you can get the crafting supplies you need sent to your front door. You can browse crafting departments by clicking one of the categories at the top of the main page, such as Art, Candles, Floral, or Needlework, and then narrow your search by clicking a material on the left of any category page. To find a specific crafting material, use the Search field at the top of the page. For project ideas, click the Launch Project Assistant link on the main page and then browse for a craft that interests you.



Kendra's Creative Corner

www.kendrascorner.blogspot.com

This blog, updated by Kendra, shares dozens of ideas and inspirations for paper crafting, stamping, and scrapbooking from her past time as a Stampin Up! demonstrator. For each day of the week, Kendra posts a different subject. For example, Mondays are "Project Idea" days, and Tuesdays are "Tool, Technique, or Tutorial" days. Each post shares an idea or offers advice for how to create homemade projects.

Share The Wares

Some of the best apples in the online orchard are the free (or free to try) programs available for download. Each month, we feature highlights from our pickings. This month, we share a program that can simplify the way you create patterned crafts.

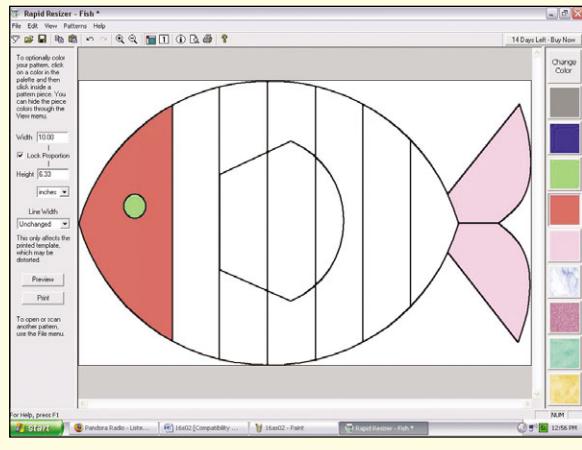
Rapid Resizer

www.rapidresizer.com

This software helps you easily resize images and is especially useful for creating larger versions of an image for use with patterned crafts such as stained glass, fabrics, and woodworking. When you install the software, enlarging an image and creating a pattern is as easy as inserting a picture from your hard drive or scanner or pasting it from the Windows Clipboard. Directions on the left side of the screen walk you through each step of the resizing process by helping you straighten, mirror, or flip your image. Next, the software guides you through cropping your image into the pattern you desire. The program will even help you convert your image to black and white to help save your printer's ink. Once you're finished creating your pattern, you can preview how your image will appear on the page before you print.

Rapid Resizer is free to try for 14 days. To download the free trial, visit the Web site and click Get Your Free 14 Day Trial Of The Rapid Resizer toward the bottom of the main page. Next, choose Click Here To Get The Rapid Resizer. Save the file to your hard drive. Once the download is complete, double-click the file to begin the installation. Follow the on-screen directions to complete the installation.

You can also purchase Rapid Resizer for \$59.95. When you open your free trial version, click Buy Now in the top-right corner. You can also visit the Web site and choose Buy Now For \$59.95 toward the bottom of the main page. On the next page, be sure to select the box next to Rapid Resizer. If you'd like to receive a physical software disc (\$9.95), select the box next to Also Mail My Order On CD, under section 2. Choose your method of payment and then click Checkout.



Yahoo! Mail

Get To Know Your Mail Carrier



Yahoo! Mail (mail.yahoo.com) may not be new, but you might be new to Yahoo! Mail. Part of the well-known Web site Yahoo!, Yahoo! Mail is a Web mail service with almost 300 million users and is currently one of the highest ranking visited Web sites. According to Hitwise.com, Yahoo! Mail was the third most visited Web site in 2009 at the end of November 2009, right below Google and Facebook.

Yahoo! Mail has experienced multiple upgrades over the years, so we'll walk you through the most recent features offered by Yahoo! In addition to basic mailing tasks, such as composing mail, organizing your inbox, and managing your contacts, much of what you'll find is oriented around chatting, filtering, security, and social networking in general. Yahoo! claims that "whatever you need from your mail, Yahoo! has a

solution that fits." Keep reading and you can see for yourself.

Sign Up & Preferences

Before you can access any of Yahoo! Mail's features, you'll need to sign up for a new account with Yahoo! (if you're not a current Yahoo! user). Yahoo! offers free and paid versions of Yahoo! Mail. You can choose the paid version after signing up for the free account. To begin, type into your Internet browser's Address Bar and press ENTER, so you can get started at Yahoo!'s Home page. From here, click Sign Up to be directed to the registration page. Next you'll fill out basic personal information, such as your full name, gender, birthday, country, and postal code. Every time you sign in to your Yahoo! Mail account, you'll use an ID and password. You'll choose these when you sign up, along with "in-case-you-forget" security questions to protect your account.

Yahoo! offers two free versions of Yahoo! Mail, simply titled Classic and New. They include many of the same features. New includes every possible feature available with the exception of broad browser support and dial-up compatibility. Classic looks a bit older than New, but it's not out-of-date. It lacks some mail management tools, including a preview reading pane, multiple message tabs, and drag-and-drop functionality, but it still has a useful interface.

You can switch between the Classic and New versions anytime by clicking Options and then clicking the Switch To button.

You can enhance Yahoo! Mail Classic or New with Yahoo! Mail Plus for an annual fee of \$19.99. Upgrading boosts your mail service by removing advertisements, using 200 sorting filters, adding Live customer care, and providing a decoy mailing address for unwanted mail.

Inbox Inventory

It can seem like there's a lot to keep track of inside your inbox, especially if you're used to letting virtual mail pile up over many days. You'll want to be familiar with composing, replying, forwarding, and saving emails, so you can properly manage what's coming in, going out, and staying.

Compose. To start a new mail message, click the New button on the Yahoo! Mail page. Yahoo! will direct you to the Compose page, where a mail template will appear, featuring

If you're new to Yahoo!, sign up for a new account and choose a new username and password.

To, CC (carbon copy), and Subject fields as well as a bigger field for the message itself. Enter your recipient's email address in the To field. (If you are sending the message to multiple recipients, separate each address by a comma.) If a recipient's address is already stored in your Yahoo! Mail Contacts, a drop-down menu will appear, suggesting contacts based on the letters you type in the To field.

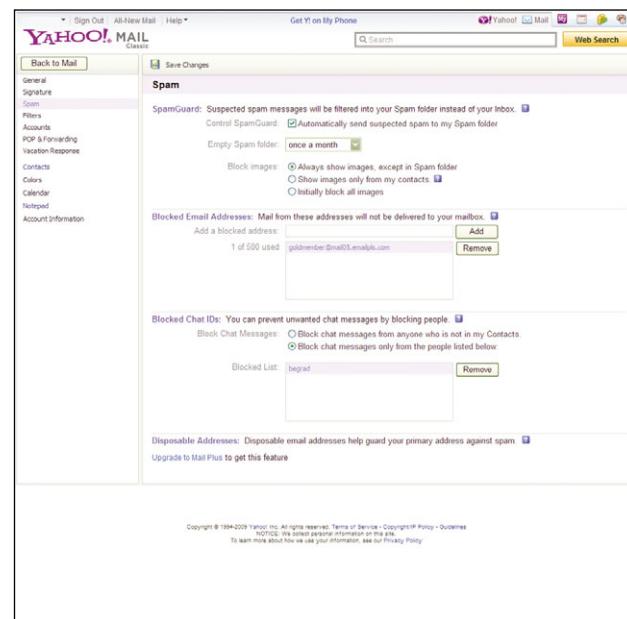
If you wish to inform other recipients of the contents of your message, enter their names in the CC field. These names are visible to every recipient of the message. And, this is one way to send an "FYI" to someone without composing an entirely new message about a topic you've already informed others about. You can also add names to the BCC (blind carbon copy) field if you want to hide particular email addresses from other individuals receiving the message.

Now you can choose a subject for your email. A typical subject line describes the purpose of your message. This can be conveyed in the form of a question, a personal statement, or a description of an event.

The large field below the Subject field is the body of the message. When you compose your message, pay attention to the word processing tools provided in the text box, including spell check, fonts style, font size, color, and more. Once you've entered the text you want to email, you can either immediately send your message or choose to save it for further proofreading or for sending out at another time. Click Save As A Draft and Yahoo! Mail will store a copy of your email.

Reply and Forward. When you open a new or read message, Yahoo! Mail Classic provides the following options: Delete, Reply, Forward, Spam, or Move. In Yahoo! Mail New, there is also an Actions tab that provides mail selection options, read/unread designations, follow-up flagging, and other preferences. In both modes, the Reply button lets you respond to the original sender; the Reply All button responds to all

The SpamGuard feature lets you decide which address or incoming messages you want to block.



recipients and the original sender. Forwarding a message lets you send the entire message to someone else you type in the To and/or CC field.

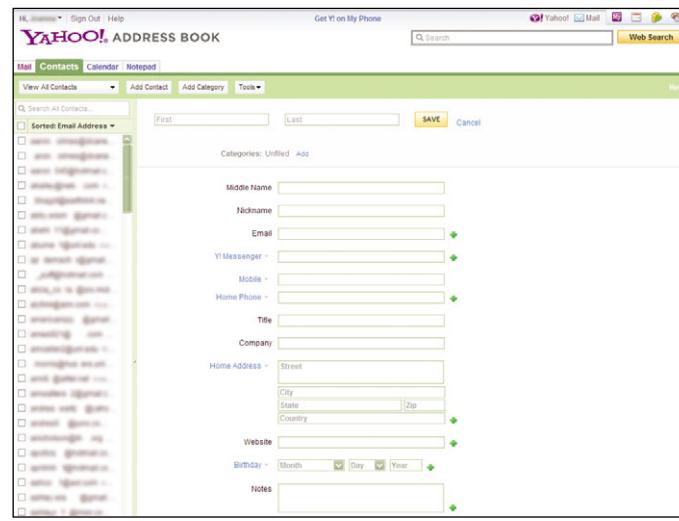
Spam. If spam (unsolicited email) clogs your inbox, select spammed messages by checking the checkboxes next to those emails and click the Spam button to move the message to the Spam folder (when you're inside the Spam folder, you can also click the Not Spam button to transfer a legitimate message back to your Inbox). Or, you can always delete that unwanted message and remove it

from the Trash bin permanently at a convenient time.

Move Folders. Moving mail to labeled folders is a convenient way to organize messages according to categories that work best for you. You can create folders by clicking Add under My Folders, then you'll enter a name for the folder, such as Bills, Family, Online Stores, or School. Yahoo! Mail organizes these folders alphabetically, so you can access each one quickly and easily.

Contacts. Yahoo! Mail stores not only email addresses of your friends, family

Click Add Contact in the Contacts tab when you want to add someone to your address book.



members, and colleagues, but also full contact data, including online messaging IDs, mobile number, home number, personal title, home address, Web site, and other relevant information. To cluster contacts into a single group, you can click Add Category when in the Contacts tab, choose a name for the category (i.e. Community Service Group), and checkmark the contacts you would like to add to the category. Click Add to Category after you've selected the appropriate contacts for your group.

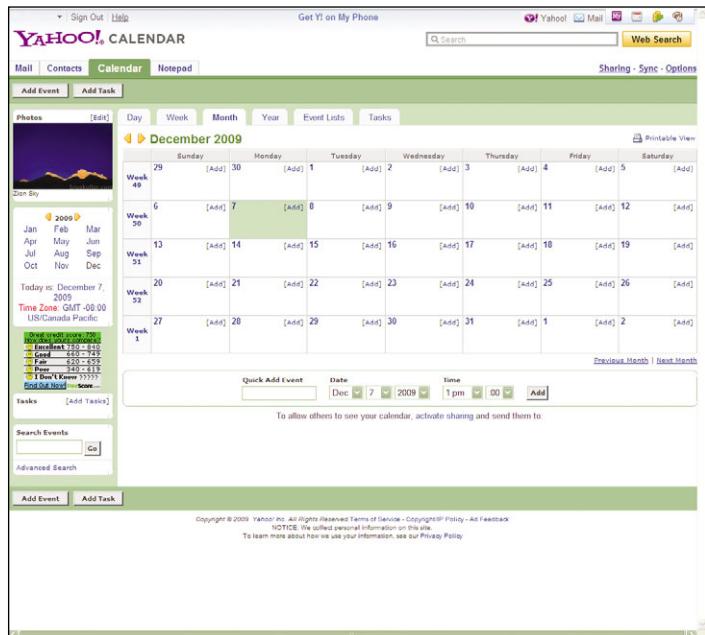
Maximizing Mail Management

Yahoo! Mail is more than just a mailbox, of course, so there are plenty of tools designed to keep your time, dates, and notes-to-self organized according to your personal preference.

Calendar. The Yahoo! Mail Calendar lets you keep track of your schedule, whether you organize your time by day, week, month, year, or all of the above. When you click the Calendar tab, you'll see your scheduling options. If you click a time under the Day tab, you'll be directed to a detailed Event page where you can insert an event title, location, duration, repeated event notifications, reminders, and contact information if necessary.

Notepad. If you want to use Yahoo! Mail as a place to store links, reminders, and other memos, Notepad exists for these reasons. Select the Notepad tab and click Add Note to open a new note. There's nothing too fancy about the Notepad feature, but it's suitable as a way to save virtual notes online.

Communication. Yahoo! Mail recently added chat and text tools. You can send IMs (instant messages) to your contacts and let them know if you're available to chat. (You can also set your



The Yahoo! Calendar is designed to let you organize your schedule by hour of the day, week, month and year as well as events and tasks.

status to Invisible or Busy.) The texting feature lets you send messages to mobile phones, but be aware that the recipient's mobile carrier might charge for a text from a Yahoo! Mail account.

Yahoo! Mail For Mobile

If you use an Internet-enabled cell phone or smartphone, you can access Yahoo! Mail by typing m.yahoo.com/mail in your mobile browser. When you sign in, you'll immediately see your Yahoo! Mail Inbox, where you can perform the same actions you would in your standard inbox, such as Mark As Spam, Delete, Move, or Mark as Unread. You'll also be able to open messages in your folder system. Click the Compose tab to start a new message. Depending on what type of cellular device you have, you may also be able to sync your mobile Yahoo! Mail with your PC, receive advanced notification for mobile messages, and view Microsoft Office attachments. ■

Security. The Yahoo! Mail SpamGuard filters unwanted mass emails. They're automatically moved to your spam folder unless you change the settings. To control how SpamGuard filters your messages, click Options, Mail Options and select Spam in the left column. You can change how often the Spam folder is emptied and block incoming images. Or, you can manage which email addresses and chat contacts are blocked. Moreover, if you upgrade to Yahoo! Mail Plus, you'll have access to

the Disposable Addresses feature, which provides decoy email addresses you can use for various Web sites, especially if you want to try an online offer but you're unsure of its validity.

Filtering. If there are messages from recipients you'd prefer to direct to particular folders, you can use the filter feature, which steers incoming messages as they arrive in Yahoo! Mail. To start a new filter, click Options, Mail, and Filters. Next, you'll click the Add button. In the Add Message Filter window, you'll name your filter based on the type of messages you would like to filter, such as "Friends" or "Amazon." Then you'll choose which filtering rules will be best for the type of messages you're organizing, i.e. filtering by header, CC, subject, or body.

Mail Blog

Stay informed about the latest changes in your mail account by visiting the Yahoo! Mail Blog. You can read about corrections to features or alerts regarding spam that might come your way. Direct your browser to ymailupdates.com for more information. ■

BY JOANNA SAFFORD

The Music Man

When I was just a lad, like most children of that prehistoric era, music lessons were obligatory. In those formative years, my instrument of choice was the piano, and I quickly found my niche between the keys, rarely on them.

Learning a musical instrument in those days was something less than pleasurable. I can remember sitting for hours on a rock-hard bench at the family Wurlitzer, a diabolical metronome ticking off a time signature that was totally unrelated to my natural arrhythmic stylings.

Subsequent to my unwilling participation in a grammar-school recital at which I delivered a spirited-yet-horrible performance of "Old Man River," I decided to retire. To this day, I consider that decision my greatest contribution to the world of music.

As the years passed, my musical yearnings resurfaced periodically. Through intensive therapy and music suppressants, I was able to control the underlying pathology. In the 1960s, however, the folk music scene exploded. Fortunately, there were no injuries. Woody Guthrie, Bob Dylan, and Peter, Paul And Mary spoke to me. I heeded their clarion call and embraced the guitar. It was a joyous time for me—not so much for those in audible proximity.

Now, several decades later, as I shuffle toward senility's doorstep, I decided to pick up my "ax" and rekindle a less-than-stellar musical career. Mrs. Modem and the kitties were less than enthusiastic, but we troubadours thrive on adversity.

Unlike the torturous hours I spent at the spinet eons ago, I quickly discovered an entirely new dimension of the Internet that I never knew existed in my more than 20 years online: A warm and friendly universe of self-directed musical instruction and related support services and resources.

Though my choice was guitar, whatever your instrument, music lessons, video demonstrations, and instruction of fingering techniques, sheet music, "fake book" charts, play-along tutorials, and even audible tuning assistance are waiting for you on the Web.

After hosing off the old six-string, my first task was to tune it. Thirty years in the closet (my guitar, not me) will have that effect. My initial stop was the Gieson Interactive Guitar Tuner at tinyurl.com/3yx9n3.

Next, I needed to brush up on some finger-friendly chords. Chords charts abound online, but for starters, I found a basic, open guitar chords chart at tinyurl.com/ycgqotx.

With my tuned guitar, a few days of intensive practice, and some bandages for my shredded fingertips, I was ready



to get down! (Well, with caution, lest I need assistance getting back up.)

When I began searching for music with which to expand my meager repertoire, I discovered thousands of printable charts, all free. A few of my early discoveries include ezFolk.com tablatures at tinyurl.com/yzna3to, Sing-Along Folks Songs ("It's 'Kumbaya' everybody!") at tinyurl.com/4lwvvq, and Chords To Folk Songs at folkguitar.us/chords.

As I continued practicing, usually accompanied by the sound of slamming doors and the adoring screams of my familial fans ("Oh, Lord, he's at it again!"), it was apparent that I still had it. My warbling vocals and spastically syncopated rhythms had not deteriorated with the passage of time. However, as a cadence-challenged individual, I was compelled to turn to the Online Metronome at www.metronomeonline.com. I also learned that for sequestered performance enhancement, the Drum Machine at tinyurl.com/74f608 at maximum volume conceals even the most inept fingering.

I ultimately strummed my way into a world of video tutorials. A quick search of YouTube yielded videos on everything from purchasing a guitar, to tuning, to various fingering, picking, and strumming techniques. When my inner Esteban demanded that I take it to the next level, what better place to turn than www.nextlevelguitar.com.

After mastering such crowd pleasers as the spiritually uplifting "Go Tell Aunt Rhody" and the thought-provoking "Yankee Doodle," it was only natural that I begin composing my own songs to secure the big royalties. Once again, the Web provided an unlimited supply of printable music paper and even guitar-chord grids at tinyurl.com/yddkj37.

So what is the lesson to be learned from this? If you played an instrument in your youth or if you have always had a hankering to tickle the ivories or provoke an aneurysm by jazz tuba (tinyurl.com/yhbnl9q), what are you waiting for?

Whatever your musical proclivity, you can find it online. You will also quickly discover that it's great fun, it's remarkably fulfilling, and you'll be well-served if you heed the words of my colleague, Mr. Dylan, and "Don't think twice, it's alright."

"Mr. Modem has left the auditorium. Good night and drive safely." ■

Mr. Modem (Richard Sherman) is an author, syndicated columnist, radio host, and publisher. "Mr. Modem's Weekly Newsletter" provides personal responses to subscribers' computer and Internet questions, plus weekly computing tips, Web site recommendations, virus alerts, hoax warnings, and more. For additional information, visit www.MrModem.com.

Upgrade Your Notebook

Take Matters Into Your Own Hands

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Troubleshoot Notebook Upgrade Problems



Taking hardware matters into your own hands is one of computing's most fundamental rites of passage. For a long time, though, even accomplished geeks avoided opening up notebooks to swap out their parts. Today's notebooks, however, are easier to upgrade than ever before. Our feature section walks you through the basics of upgrading your notebook's memory, storage, and accessories.

Many people mistakenly assume automatically that notebooks are too expensive or too difficult to upgrade. So, they limp along with poor computer performance and a system that no longer meets their needs—or worse, they spend a bunch of money on a new computer that they didn't need to buy. Avoid that fate by weighing your options carefully. The benefits of upgrading a notebook are similar to the benefits of upgrading your desktop PC. You can save a lot of money, and you have more control over your hardware priorities. Upgrading often extends the machine's life for a fraction of the cost of a new computer. Notebooks have one unique advantage in that their upgradeable components are designed to be modular and simpler to replace. You're less likely to navigate a rat's nest of cables and circuit boards when upgrading a notebook's memory or hard drive.

On the other hand, notebooks have fewer components that can be reliably or affordably upgraded to begin with. We discuss the parts which can often be easily upgraded, but that list excludes motherboards, CPUs, screens, and keyboards. You're much more limited with what's possible in the world of notebook upgrades, and the parts that are available are more proprietary. Every piece of hardware is specifically calibrated for a particular make and model, limiting the selection and driving up the price for any components compatible with your machine.

Replace Memory

The first article in our series will help you learn to replace and upgrade the memory in your notebook. Memory is one of the most cost-effective and simplest upgrades you can make to any computer. What's more, notebooks rarely come with as much memory as they can use, so memory upgrades often work wonders.

You can tell how much memory your machine has from the System Properties dialog box. Select Properties after right-clicking Computer in Windows Vista/Windows 7 (or My Computer in Windows XP). At least 1GB should be a

bare minimum for any machine today—2GB or more is best.

Replace Hard Drives

Storage is another area where notebook manufacturers (and consumers) often skimp. It seems like you'll never need all that storage space on a new hard drive. However, add a couple years' worth of downloaded music, home movies, and birthday party pics, and you'll be out of room before you know it.

External hard drives meet expanded capacity needs in some situations, but they can be a pain to carry around. Capacity may not be your only problem, either. If you're starting to explore video editing or DVD authoring, you may need a faster hard drive. In that case, or if you just need larger built-in capacity, follow our steps for a new drive installation.

Performance Accessories

Adding or replacing notebook accessories are other ways to boost your notebook's performance and increase your productivity.

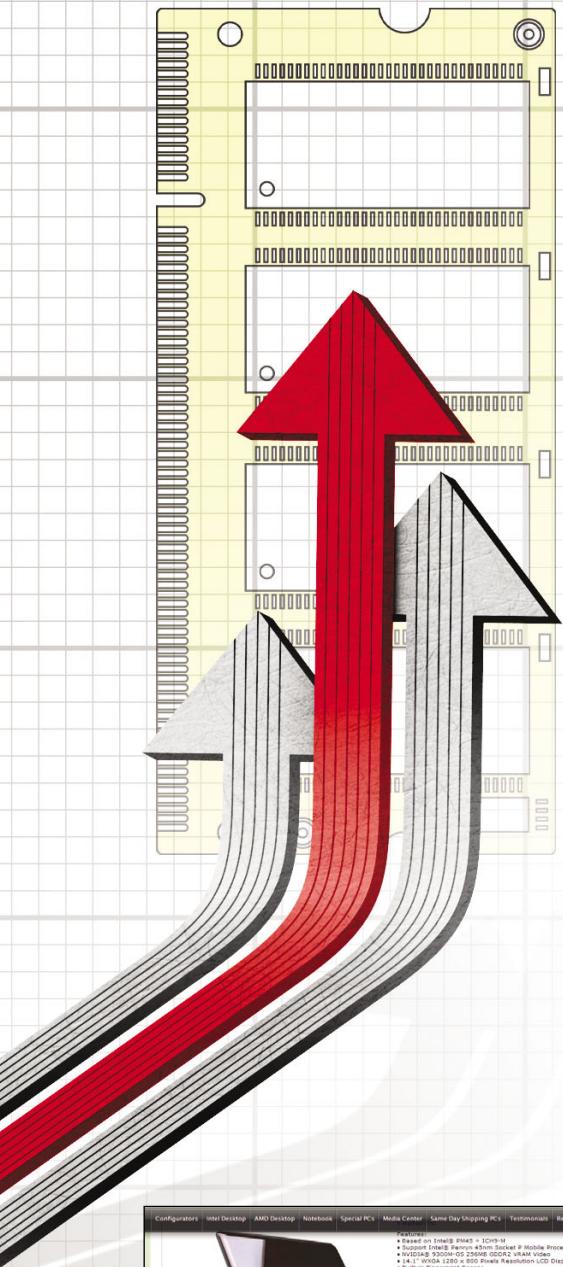
Examples of important accessories are USB flash drives and external hard drives. Many flash drives (and flash memory cards) support Windows ReadyBoost, which is a feature that increases the speed of Windows Vista and Win 7 systems. Easy though it is to replace your notebook's internal memory, we wouldn't blame you for trying out a ReadyBoost-capable memory card before you crack open your notebook's case.

Attaching an external drive to your notebook is much easier than installing a new hard drive. If you have multiple computers, but don't have a home network, you can use the external drive to ferry large files from one PC to the next.

Your Problems, Our Solutions

Finally, we'll discuss some common problems that arise during notebook upgrades, along with likely solutions. Whether trouble arrives when you're preparing for the upgrade, carrying it out, or cleaning up afterward, we've cataloged the most likely culprits and resolutions. Of course, we can't solve or predict every problem in advance, but we'll point out some of the most common, and some of the most serious. ■

BY GREGORY ANDERSON



Replace Notebook Memory

An Upgrade You'll Notice

Although many components on a notebook are difficult to upgrade, memory isn't generally one of them. It's one of the few laptop components not hidden underneath a labyrinth of casing and screws. And if your notebook is having trouble multitasking or editing photos and video, a memory upgrade may be just the trick to boost performance. A memory upgrade will also help those who enjoy surfing the Web, because the more data your PC can store in RAM (random-access memory), the less time it will take to load flash animations or audio from your favorite Web sites.

Windows 7 owners may also want to maximize the memory on their notebooks, because Microsoft engineered the operating system to store commonly used program code and data in the RAM to improve your computer's responsiveness when opening or switching among programs. Here, we'll take you step-by-step through the selection and installation of additional memory in your notebook.

Operation system support	Support Windows Vista®/XP
CPU	Intel® Pentium®
	• Dual Core Processor, FSB 1333MHz
	• Intel® Core™ i3, i5, i7, L2 Cache
Chipset	Intel® GMA 4500 +ICH9-M
	• Integrated Graphics
	• 800MHz and 1066MHz FSB support
Memory	• 4GB DDR3 RAM
	• Support DDR3 1333/1600MHz
	• Dual channel RAM modules
	• Easy upgrade for up to 500MHz
	• Max. 8GB
ODD	Fixed 12.7mm height SATA Tray Load
	• Connect CD-RW/DVD-ROM
	• Blu-ray Disc Multi
HDD	• 2.5" 7200RPM SATA II HDD support with 80/120/160/250GB (5400rpm) capacity
	• 2.5" 500GB (7200rpm) capacity
Display	Support 14.1" WVA (1366 x 800), glare and anti-reflection
Graphics Chip	NVIDIA® GeForce® 250M
	• NVIDIA® GeForce® 250M Bus width
	• 1280x800 256MB GDDR3 Type
	• Realtek ALC268
	• 2 channel HD Audio

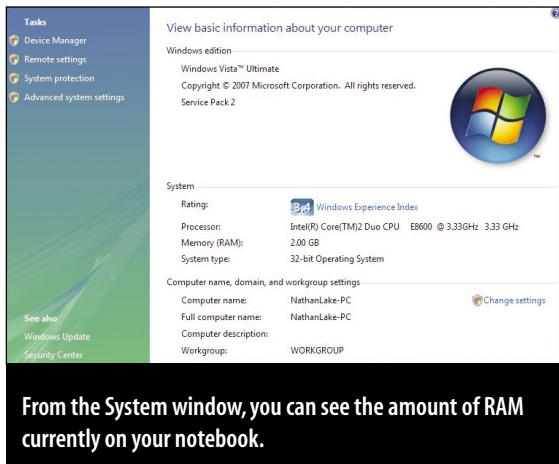
From the product manufacturer's Web site, such as CyberPower (www.cyberpowerpc.com), you can find the maximum amount of memory the laptop will support.

Maximum Memory

First, you'll need to determine whether your notebook will support extra memory. Unlike desktop PCs, notebooks are sometimes sold with the maximum amount of memory already installed onto the motherboard. Typically, the memory ceiling will be listed in the owners manual, in the detailed product specifications, and on the manufacturer's Web site. Once you've found out how much memory the notebook supports, use Windows to determine how much RAM is currently installed on your laptop. In Windows XP, click Start, select Control Panel, and double-click System (in Classic View). The current amount of memory will be listed under the Computer section. If you run Windows Vista or Win7, click Start, right-click Computer, and select Properties. The total will be listed under the System section, next to Memory (RAM).

Types Of Memory

Laptop memory is much smaller than desktop memory, and when selecting additional RAM, you'll need to match the type and speed of your current modules, so you'll want to be careful about what type you select. For example, if you buy RAM that's faster



From the System window, you can see the amount of RAM currently on your notebook.



Using a mini Phillips screwdriver, you should be able to remove the screws from the back cover of the laptop panel.

than your current chip, the motherboard may not recognize it, or the memory may cause errors in Windows. Most notebooks use a SODIMM (small outline dual in-line memory module), but some laptops and netbooks take micro-DIMMs. SODIMMs and micro-DIMMs are sold in DDR (double-data-rate), DDR2, and DDR3 flavors. Your notebook's users manual will list what type and speed, such as DDR2 667MHz or DDR3 1066MHz, you'll need. Your notebook will only be compatible with one type, because each type of DDR module has a different number of physical pins.

To help you select memory appropriate for your notebook, some vendors, such as Kingston (www.kingston.com) and Crucial (www.crucial.com), feature Web-based memory search utilities that let you select your laptop from

example, if the maximum capacity of the notebook is 4GB, and it features a 2GB and 1GB module, you'll have to remove the 1GB stick and install a 2GB stick to increase the amount of RAM.

To check how many modules are installed on your notebook, begin by turning off the PC, unplugging it from the wall outlet, and removing the battery. This way, you won't feel any jolts of electricity while you're working on the system. Next, you'll want to use an antistatic wrist strap or ground yourself by touching a nearby piece of metal before you touch any of the

One of the easiest ways to buy dual-channel memory is to purchase a memory kit, such as the DDR2-800 memory seen here from Crucial.

drop-down menus and see which modules (from that vendor) will work with your laptop. For example, Crucial's Memory Advisor tool has you choose your Manufacturer, Product Line, and Model from an extensive drop-down list. Click the Find It button, and Crucial will detail how many memory slots are in your notebook; what type of memory you'll need, such as DDR2-533; and answers to frequently asked memory questions.

Crack Open The Case

Most laptops offer only two slots for RAM, and depending on the size of the modules installed by the manufacturer, you may have to remove one or both of the modules to increase the amount of memory on your notebook. For

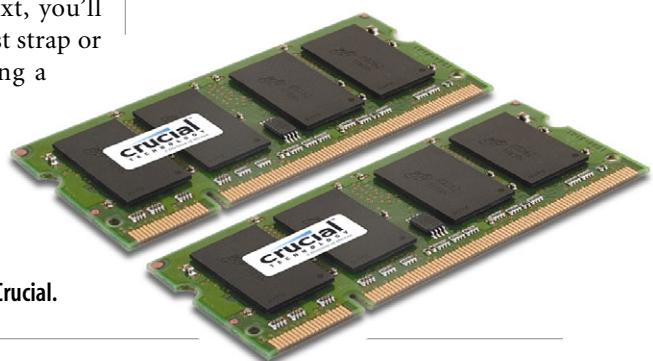
internal components. This will help prevent the static electricity in your body from shorting out the notebook's hardware.

Next, flip over the laptop and locate the removable panel over the RAM. Typically, the cover is 2 or 3 inches wide, and the owners manual or manufacturer's Web site indicates exactly where it's located. To open the back panel, you'll need a mini Phillips head screwdriver. Note that with some notebooks, you may need to use a flat-head screwdriver to lift up the keyboard and access the RAM beneath the keyboard tray. After you've opened the panel, spread the clips on the side of the RAM, and the stick should spring up. Grab the module by the edges to ensure that your body doesn't shock the RAM hardware.

If there's a second module, go ahead and remove it, as well. Examine the RAM to determine if one of the sticks features a smaller capacity than the other, and if you're keeping one of modules, you'll know which one needs to be reinstalled into the PC. Based on the total amount of memory your notebook can handle (or the amount you want to increase it to), you can now make a confident buying decision.

Do You Need Dual Channel?

Rather than working independently of each other, a dual-channel set of memory will allow your computer to communicate with both modules at the same time. If you regularly deal with large files, such as when editing



RAM Speed

Some manufacturers list the type of RAM by the module name, such as PC2-3200, rather than the standard name, such as DDR2-400. To help you make sense of the alphabet soup, we've made a list of the corresponding standard and module names. The number after the DDR listing is the memory clock speed, while the number after PC in the module name indicates the peak transfer speed.

Standard Name	Module Name
DDR200	PC-1600
DDR266	PC-2100
DDR333	PC-2700
DDR400	PC-3200
DDR2-400	PC2-3200
DDR2-533	PC2-4300
DDR2-667	PC2-5400
DDR2-800	PC2-6400
DDR2-1066	PC2-8500
DDR3-800	PC3-6400
DDR3-1066	PC3-8500
DDR3-1333	PC3-10667
DDR3-1600	PC3-12800

Spring Cleaning

While you've got the RAM removed and panel open, it's a good time to clean some of the dust and debris out of your computer. Use a can of compressed air in and around the memory slots to clean up the notebook's interior.

videos or photos, you may want to use two identical modules to improve the response time of your PC when you're using demanding applications. The easiest way to find identical RAM is to order a dual-channel kit or two sticks of the same memory. But you may also

be able to use the existing memory in your PC. Contact your manufacturer to find out if your notebook supports dual-channel memory and if identical memory is available. You could also open up the notebook to identify the exact product number of the module.

How Much RAM Is Enough?

For PCs running Win7, Microsoft recommends 1GB of memory for 32-bit versions of the OS (operating system) or 2GB of memory for 64-bit versions. For computers running Vista (32- or 64-bit versions), Microsoft suggests your PC feature 1GB of RAM. For WinXP, Microsoft recommends 128MB of RAM.

That said, Microsoft's recommendations are based on running Windows, not compatibility with the additional applications and tasks you want to perform. Most experts suggest that at least 2GB is necessary for adequately operating the newest applications. And if you play video games, edit photos or videos, or work with design applications on your PC, you'll notice that your PC is more efficient when running 3GB or 4GB of memory.

Some of the newest notebooks can handle up to 8GB of memory, but there's some debate as to the value, currently, of upgrading a notebook past 4GB. First off, 32-bit versions of Windows aren't capable of using more than 4GB of memory, so you'll need a 64-bit version to successfully upgrade beyond 4GB. Additionally, most current applications aren't so memory-intensive that you'll see a performance boost when upgrading past 4GB. But if you run multiple memory-intensive tasks, such as if you render video or edit photos while listening to Internet radio stations or switching among multiple

applications, you may see a benefit from more than 4GB of RAM.

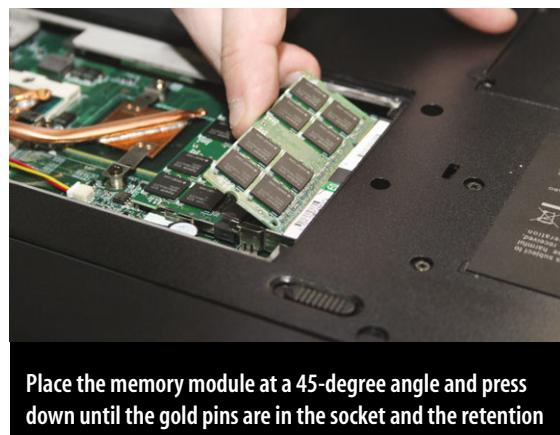
Installation

With the case open or back panel removed, ground yourself and then pick up the new module by the two short sides. Locate the open slot (or slots) and insert the RAM at a 45-degree angle. Move your finger to the back of the printed circuit board and push down until nearly all of the gold pins are in the socket and the retention clips have grabbed the memory. If you have a second module, repeat the process. Replace the back panel and replace the screws. Next, restart the PC and check to see if your new memory has been detected. You can follow the instructions for opening the System window outlined in the "Maximum Memory" section above to determine if the notebook has detected your new memory.

Take Advantage Of The New Memory

Try out the program that used to give your notebook problems, or if you had trouble multitasking, open three or more applications and test how much quicker your PC is. You should notice a difference right away. ■

BY NATHAN LAKE



Place the memory module at a 45-degree angle and press down until the gold pins are in the socket and the retention clips have locked onto the memory.

Replace A Notebook Hard Drive

Boost Your Laptop's Speed & Capacity

More of us are buying laptops than desktop computers these days, it seems. That's a great trend from a mobility standpoint, if not necessarily from an ergonomic perspective, and it helps us connect and compute from practically anywhere.

On the other hand, having a notebook makes things a little more complicated when you want to install a new hard drive. The crux of the matter is the fact that most laptops have only one internal drive bay. With a desktop PC, you'll probably be able to find the room and the connections to install a permanent, additional storage drive or to at least set up a temporary connection while you clone (completely copy) your old drive to your new one. If you want to do these things with a typical notebook, however, you'll need to attach the new drive using a different interface, such as USB.

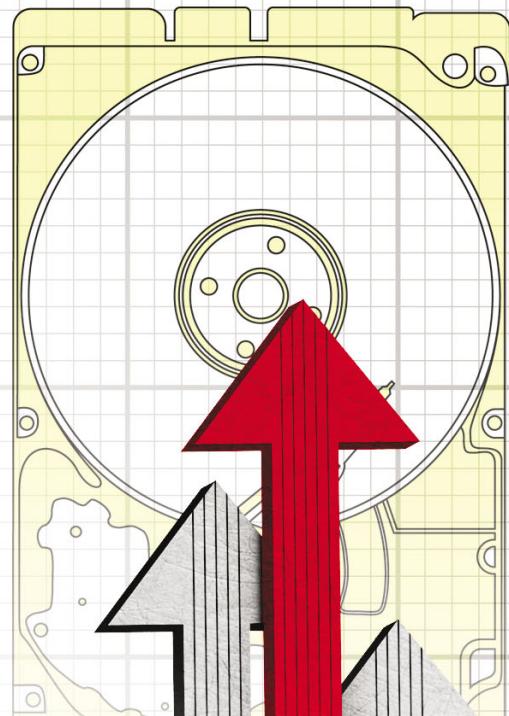
First, we'll talk about how to shop for a new drive. Next, we'll walk step-by-step through the process of copying your old drive to a new one, as applicable. And in the "Windows On A Notebook" sidebar, we'll touch upon other scenarios, such as what to do when your Windows installation files are on a recovery partition (section) of

the old drive and not on a CD or DVD.

How To Buy

Whatever your reasons for replacing your drive—a need for more storage capacity or a hardware failure, for instance—look on the bright side: Your new drive will probably be faster than your old one. And because most of a laptop's sluggish performance stems from the fact that its CPU spends much of its time waiting for data from the hard drive, consider this a golden opportunity to give your portable computer a serious boost in speed as well as capacity.

Before you shop, however, you'll need to determine which drive interface your laptop supports. With your notebook turned off, carefully turn it over so you can work on its underside. Remove the battery, usually by sliding a retention latch to one side. Use a tiny screwdriver to remove the fasteners from the plastic or metal panel covering the hard drive. (The panel may be labeled with an icon of a stack of disks or something similar.) Don't lift the hatch if it doesn't come off easily, however; the hard drive might be attached to the panel as well as to an



interface connector, and you could damage something if you move the drive the wrong way. Try shifting the hatch to the side to detach the connectors before you remove it.

Once your drive is out of the laptop, take a look at its data and power connections. If they have rows of metal pins, your drive is an IDE (Integrated Drive Electronics) model. If the connectors are L-shaped and made of plastic, it's a SATA (Serial Advanced Technology Attachment) drive. And if your notebook is very small, its drive may use a more compact interface. Check with the computer or drive manufacturer for more information on the type of replacement drive you'll need.

Now that you've determined the interface, check the drive's physical width, meaning the smaller dimension of its

rectangular shape. Most laptops use 2.5-inch drives, which are actually slightly wider than 2.5 inches. Certain ultraportable PCs and netbooks use 1.8-inch (again, slightly larger) drives, though.

Finally, it's time to shop for a new hard drive or SSD (solid-state drive). Of the two, a traditional hard drive with spinning magnetic disks is the most economical choice. You'll get a lot of gigabytes for your dollar, plus reasonable speed. Among the most recent hard drives from the handful of manufacturers such as Hitachi (www.hitachigst.com) and Western Digital (www.wdc.com), a drive with a 7,200rpm disk rotation speed will give you the best performance. And the more cache memory, such as 16MB, the better.

If you're more interested in extending your notebook's battery life, however, shop for a "green" drive or one with a slower rotational speed such as 4,200rpm. And if your laptop supports hard drives with drop sensors and/or full disk encryption, consider a drive with these data protection technologies.

For even quicker bootups and application launches, consider an SSD. Current units from Intel (www.intel.com) and OCZ (www.ocztechnology.com) provide noticeable improvements in performance and battery life, especially under Windows 7. Silent SSDs also are tougher than hard drives, which could decrease the chance of data loss should you drop your computer.

On the other hand, because most laptops only have room for one drive, an affordable SSD may not give you enough storage space. Budget SSDs with a mere 60GB or 64GB start at about \$139, as compared to 640GB (\$120) or larger hard drives. Moreover, if your notebook uses an IDE interface, you'll have vastly fewer SSD choices than someone with a SATA laptop.

Move The Old To The New

To copy everything on your old drive to your new one, you'll need a few extra items. If you removed your drive earlier

to check its interface type or width, re-install it and the laptop battery now.

Hardware. First of all, you'll need to connect your new drive to your old one so you can transfer data between them. Assuming your laptop has only one drive bay, like most, you can use an adapter cable that can connect a SATA or 2.5-inch IDE drive to a USB port. Alternatively, you can use an external 2.5-inch drive enclosure for USB or even eSATA (external SATA), if your laptop has an eSATA port and both drives have SATA connectors. You can buy drive upgrade kits that come with everything you need for a transfer, as well as to turn your old drive into a portable external unit.

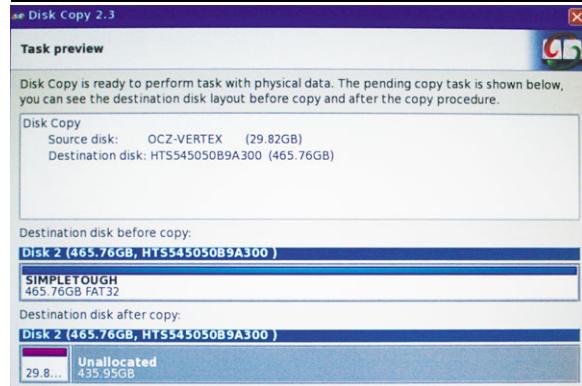
Software. Next, if your new hard drive didn't come with a drive copy utility, acquire one. There are several free options available from third parties, such as CopyWipe (www.terabyteunlimited.com/copywipe.php), as well as from drive manufacturers, such as Acronis True Image WD Edition (tinyurl.com/yd62q2o). Many such apps can resize partitions to fit on a drive of a different size. Note that manufacturer-supplied software may not work with other brands of drives.

Data transfer. We used Easeus Disk Copy 2.3 (free; www.easeus.com/disk-copy) and an IDE/USB adapter cable to clone our old drive. First, download the installer file Dc.zip. Right-click it and select Extract All or use your third-party compression software to decompress the files. Afterward, you'll have a Readme.txt file and a disc image file called Dc2.iso.

Next, use CD/DVD burning software, such as the free Imgburn 2.5.0.0 (www.imgburn.com), to create a bootable CD from the disc image file. Put a blank CD-R (CD-recordable) in your laptop's burner. Launch ImgBurn and then click Write Image File To Disc. Next to the Please Select A File label, click the Browse For A File icon. Find the Dc2.iso file you extracted and then double-click it. If you have more than one CD/DVD drive, select the



An inexpensive USB drive adapter lets you clone your laptop's hard drive to a new one. Buy one that can provide additional power in case your notebook's USB ports can't.



Easeus Disk Copy, another free tool, lets you copy a drive's partitions or entire contents to another.

one you want to use in the Destination menu.

Finally, click the Write icon at the bottom of ImgBurn's main window. The program likes to eject and reclose the drive tray before it verifies that all data was correctly written; when this happens on a laptop, you'll probably

have to push the drive tray shut and click OK. When the disc is done burning, click OK and then close ImgBurn. Leave the bootable CD in the drive tray and shut down your computer.

Next, connect your new hard drive to your laptop and restart your PC with the Easeus boot disc. If you need to press a key to boot from the CD, do so. (Your BIOS [Basic Input/Output System] boot device priority settings must allow the CD/DVD drive to boot the computer before the hard drive or a USB drive. To access the BIOS Setup, restart the computer and quickly press the indicated



An SSD can wake up a notebook better than any other upgrade. Then again, affordable models don't have enough capacity for most users.



You may need to slide open your laptop's hard drive hatch in case the drive is fastened to it. Sliding the hatch to the side will detach the IDE or SATA connectors.

key, such as F2 or DELETE, when prompted. Use the indicated keys to navigate Setup and save your changes when you exit it.)

Windows On A Notebook

Our situation may differ from the one described in this article. For instance, if you have a Windows installation CD and you want to perform a clean install of the OS on your new drive, simply install the new unit and boot the laptop with the CD. You'll need to reinstall your applications and your personal data from your backups.

Of course, most notebooks don't come with discrete installation/recovery discs. These days, the majority come with a hidden recovery partition on the hard drive, such as D: or E:. Before you swap drives, follow the manufacturer's instructions to burn a recovery CD or DVD, if

applicable. Shut down your laptop, install the new blank drive, and boot up with the recovery disc to do a clean install of your notebook's OS and original preinstalled applications.

If there's no way to create a recovery disc, your clean reinstallation options may be limited to using the recovery partition itself. Clone your old drive in its entirety as detailed in the main article and then install the new drive in your laptop. If it boots properly to the well-worn Windows installation, restart the computer. When prompted, press the indicated key, such as F10, to start the recovery process. After it

returns your laptop to the way it came from the factory, you'll need to reinstall any applications that didn't come preinstalled. You'll probably also need to recover your personal data files from your backup medium.

Of course, if your old hard drive dies, you can't exactly clone it to a new one. And if your laptop didn't come with a recovery disc—and you couldn't or didn't make one before the old drive failed—things get tricky. You can replace the hard drive easily enough, but you might also have to buy a new copy of Windows if the notebook manufacturer isn't able to provide you with one. ■

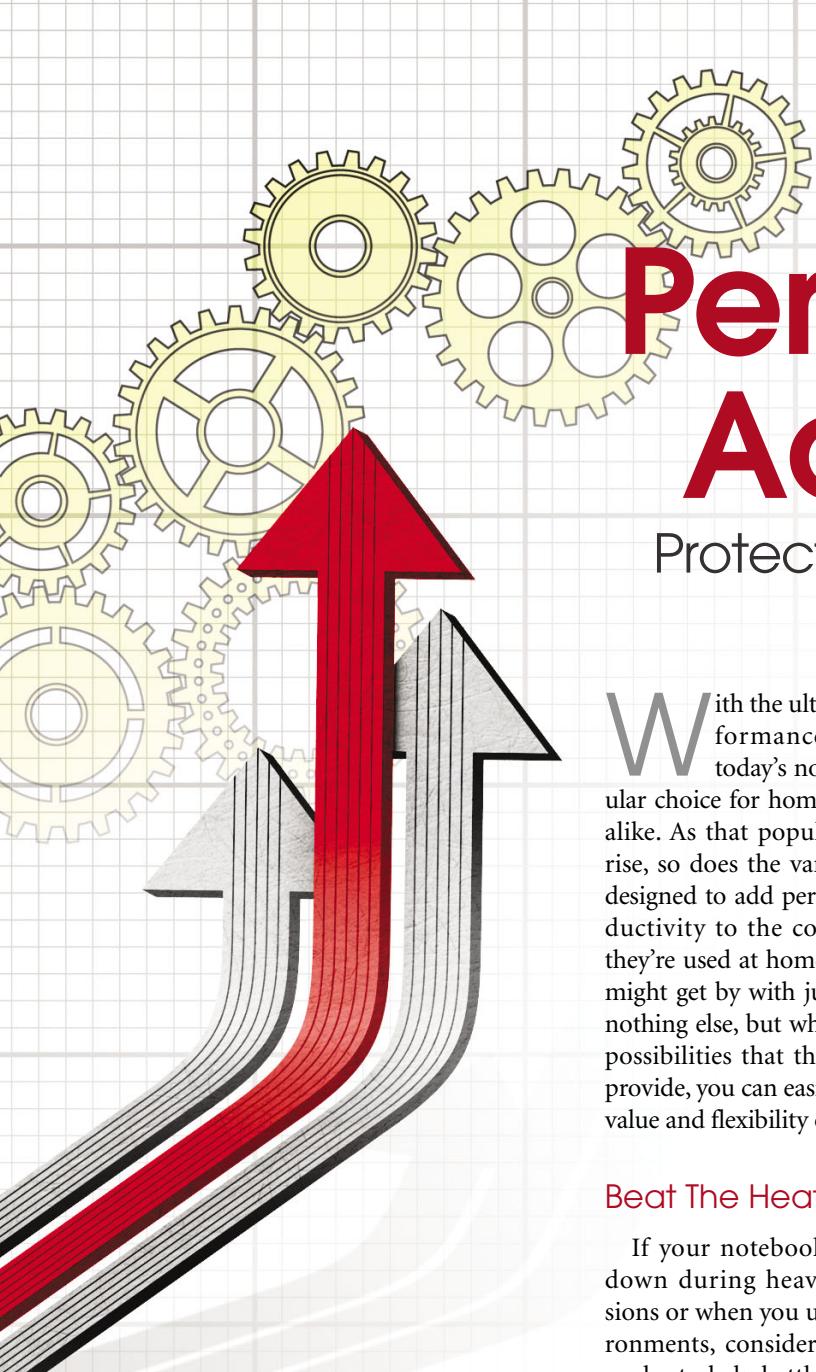
At the Easeus menu, choose the default options or wait for the Welcome To The Disk Copy Wizard screen to appear. Click Next twice. Choose your source device, meaning your old hard drive (Disk 0 on our computer), and click Next. Select your new drive, such as Disk 1, and click Next. Click Proceed and Yes. After the transfer, click Done, eject the CD, and shut down your computer.

Carefully remove your old hard drive from your notebook as described in the "How To Buy" section. If it's fastened to the access hatch, unscrew and detach it. Install the new drive in the old unit's place and be careful not to put it in upside down or backward. Finally, screw the drive hatch back into place and replace the notebook's battery.

Start the PC to make sure that the new drive launches your OS (operating system) properly. If some of your new drive's capacity isn't available, you'll either need to increase the size(s) of your drive's partition(s), such as C:, or create a new partition in the unallocated space, such as E:. To use Windows' Disk Management for this task, refer to "DIY Project: Partition Your Hard Drive" on page 33 of the June 2009 issue.

Keep your old hard drive intact for a few weeks until you're sure that the new drive works out. In the meantime, enjoy your laptop's new personality. ■

BY MARTY SEMS



Performance Accessories

Protect & Improve Your Notebook

With the ultimate blend of performance and portability, today's notebooks are a popular choice for home and mobile users alike. As that popularity continues to rise, so does the variety of accessories designed to add performance and productivity to the computers, whether they're used at home or on the go. You might get by with just a notebook and nothing else, but when you explore the possibilities that these extensions can provide, you can easily boost the overall value and flexibility of your computer.

Beat The Heat

If your notebook crashes or shuts down during heavy computing sessions or when you use it in warm environments, consider using a notebook cooler to help battle the heat. External notebook coolers are slate-like devices that sit beneath your notebook and use fans or passive cooling to draw heat away from the notebook. Some coolers require no power source, while

others use a USB, AC, or DC connection to deliver power to the unit. Most models are thin enough to fit in a notebook bag along with your notebook, so you won't have to haul it around as a separate device.

If the prospect of a notebook cooler sounds particularly unexciting, rest assured that many models offer benefits beyond just cooling. For example, the SilverStone Noble Breeze NB02 (\$94.95; www.silverstonetek.com) not only includes dual remountable fans that can blow into or away from the base of the notebook, but it also has five USB 2.0 ports, audio in/out and microphone connections, and an Ethernet connection.

Other models, such as the Zalman ZM-NC2000 (about \$60; www.zalman.com), feature adjustable fan speeds that let you tailor the cooler for specific environments and conditions. If you're looking for a cheaper option, there are also models that simply elevate your notebook to help facilitate the flow of air beneath it. This design might sound too simple to be effective, but these models do indeed help decrease notebook operating temperatures (though not as much as products with active, or powered, cooling).



The confined environments of notebooks make them prone to increased heat output, but notebook coolers such as this Zalman model help keep your notebook from overheating and subsequently crashing or shutting down.

Give Your Lap A Break

Despite their other common name, notebooks aren't always best suited for your lap. In fact, using a notebook on

your lap—especially for long periods—can be incredibly uncomfortable. If you use your notebook anywhere other than a flat desk or table, it might be time to consider using a lap desk or notebook stand.

There is a wide range of desks designed to sit comfortably on your lap, even when your computing sessions last for hours. For example, Logitech's Comfort Lapdesk (\$39.99; www.logitech.com) features a cushioned fabric base that rests on your legs, along with a solid top to hold your notebook firmly in place. Other models, such as the LapWorks Laptop Desk Original (\$24.95; www.laptopdesk.net), forgo the fabric for an all-plastic collapsible design that serves as a handy flat surface for your lap.

Boost Your Storage

Internal notebook hard drives have far more capacity today than they used to, but as data storage needs grow alongside the booming popularity of digital media, the average notebook hard drive easily becomes overwhelmed with data. If this describes your situation, the answer is simple: Get an external hard drive.

External hard drives offer plenty of capacity at surprisingly affordable prices, and recent models are relatively slim and portable. Regardless of their portability, many notebook users keep an external drive at home and use it to store backups and other data (such as their music and video collections). Connecting a notebook to an external drive is as simple as plugging in the drive's USB cord to the notebook and turning on the drive.

Although some external hard drives are undeniably bulky, others are geared toward mobile users. For example, Hitachi's SimpleTech line of Signature Mini drives (starting around \$75; www.simpletech.com) are described by the company as "bite-sized" drives, but they nonetheless offer decent capacity. With a sleek smooth design and multiple colors available, the

If your legs cry for relief after long notebook sessions on your lap, consider using a lap desk.

Logitech's Comfort Lapdesk gives you plenty of cushion while keeping your notebook angled toward you.



Signature Mini drives suit most tastes, but they're also durable enough to withstand travel requirements. Capacities range from 120 to 500GB, and the drives include Fabrik backup software and the Joggle digital content manager for tracking, sharing, and publishing photos, music, and videos.

If you need more capacity, and you're not seeking something that's quite so sleek, consider the Western Digital WD Elements Desktop 1TB drive (\$119.99; www.wdc.com). Make no bones about it—this is a bulky drive. But with its massive capacity and low price, it's tough to beat if you need extra desktop storage whenever you're at home with your notebook.

Performance In A Flash

If your notebook uses Windows 7 or Windows Vista, you can take advantage of a Microsoft technology called ReadyBoost, which uses flash-based storage to speed up common system operations. Because flash drives have far faster seek times than the relatively slow hard drives installed in most notebooks, ReadyBoost users can enjoy faster-loading applications, including Windows itself.

ReadyBoost works by using a flash-based device as a storage cache, where it

can quickly access data when required. Most flash devices (such as a USB key drive or a Secure Digital memory card) with at least 250MB of capacity and 2.5MBps (megabytes per second) read speeds are compatible with ReadyBoost, but the faster the drive, the better.

You can find inexpensive devices that fill the bill, but if you want to get the most from ReadyBoost, consider a drive such as the 4GB Lexar Jump-Drive Lightning (\$57.99; www.crucial.com). Considering that any device you use must be plugged into your notebook at all times to take advantage of ReadyBoost, you'll want it to look good, and this Lexar drive is no slouch in the looks department, with a shiny stainless steel case.

Flash drives also come in handy for other uses. Mobility is naturally one of the biggest advantages provided by notebooks, but that aspect also creates one of their most serious disadvantages: poor security. Notebooks are easily susceptible to loss or theft, and if you store sensitive data on yours, it's not just the notebook that you'll be missing. The good news is that certain flash drives include encryption to keep your data safe if the drive is misplaced or stolen, so

External hard drives help extend the storage capacity of notebooks. Some models, such as Hitachi's SimpleTech Signature Mini, even blend some form with their function.



you can simply keep your sensitive data on that drive and not on the notebook.

For example, CMS Products' Vault OTG drives (\$12.95 to \$149; www.cmsproducts.com) include CE Secure software that lets you set a password that allows access to the drive. This software uses 256-bit AES (Advanced Encryption Standard) encryption and is completely integrated with the drive, so you won't need to worry about installing the software to ensure that the drive remains secure. Further, these drives automatically lock when you remove them from the notebook's USB port, so the security process remains hassle-free outside of the password requirement.

Data Entry Made Easy

Do you ever feel confined by your notebook's keyboard? You're not alone, especially among users who need to perform data entry. The good news is there's an easy, inexpensive solution that can help make your notebook keyboard look and act more like a desktop version. Numeric keypads are available that simply plug into any available USB port and provide a standard key format for data entry.

Lenovo's ThinkPad USB Numeric Keypad (\$21.99; www.lenovo.com) includes a 17-key number pad with quiet keys for data entry. Although this product is marketed toward ThinkPad computers, it also works with non-ThinkPad notebooks. If you don't want



With the ReadyBoost feature in Windows 7 and Windows Vista, you can speed up operating system and application loading times as well as other common system tasks. Fast flash-based drives such as this Lexar USB model are a must to get the most from this exciting technology.

to bother with the cord, check out the Targus Wireless Stow-N-Go Keypad (\$29.99; www.targus.com), which has a wireless receiver that you plug into one of your notebook's USB ports. This keypad requires one AA battery (included), and it includes a built-in storage compartment for the receiver.

Join The Hub Club

As notebooks (and their diminutive cousins, the netbooks) grow perpetually smaller, manufacturers face the increasing challenge of including enough ports to satisfy every customer. But with the massive variety of add-on devices, it's tough to get by with just a handful of USB ports. That's where hubs come in.

With a USB hub, you can expand one of the existing USB ports on your notebook into four or more ports, which you can use to connect your phone, mobile media player, cordless mouse,

external hard drive, numeric keypad, musical instrument, mobile printer, or any other device that uses the USB standard. In fact, when it comes to extending the performance of your notebook, USB is key, because many portable tools rely on the standard for easy plug-and-play connection.

Notebook & Desktop In Harmony

Using a notebook or netbook on the road is convenient, but when you bring that device home, you might be more tempted to use your spacious desktop PC. After all, a full-sized monitor and keyboard are generally a welcome relief to the cramped confines of a notebook. If you're tired of switching back and forth between your notebook and your home desktop PC, consider using a notebook KVM (keyboard-video-mouse) switch to morph them into one seamless device.

With a KVM switch, you can use one screen to work on two computers or simply use your desktop PC's monitor and keyboard to control your notebook. These devices often include other perks, such as file transfer between the two computers, so if you constantly switch between your desktop and your notebook, you can keep data easily synchronized across both.

For example, IOGear's USB Laptop KVM Switch with File Transfer (\$49.95; www.iogear.com) has USB connections on each end—simply plug one end into your desktop and the other into your notebook (or you can connect two notebooks or two desktops). The switch uses desktop image scaling to automatically resize the other computer's desktop image on your screen. Switching between the notebook and desktop PC is as simple as clicking an on-screen button, and the switch also features a built-in file transfer utility for backing up, updating, and transferring files between the two computers. ■



This KVM switch from IOGear holds the power to morph your notebook and desktop PCs into one seamless device for painless computing across both platforms.

BY CHRISTIAN PERRY

Give Your Laptop Some Love

Troubleshoot Notebook Upgrade Problems

Notebook computers are pretty much closed systems, but that doesn't mean you can't upgrade them at all. Often, it is easy to install more memory, a larger hard drive, or an accessory that lets you get a lot more out of your laptop—but there are always things that can go wrong.

Before you even consider upgrading, contact the laptop's manufacturer to see if the parts you want to purchase are compatible with the computer. Sometimes, manufacturers use special connectors, require very specific types of memory, or add software to hard drives that you can only get from them, so you may need to order parts directly from that specific manufacturer. Also make sure that whatever you plan to install won't void your warranty if the laptop is still under one. If you do run into problems during or after the installation, the following solutions should help.

Problem: I installed more memory, but Windows reports a smaller amount than what is installed.

Solution: Most laptops use integrated graphics, meaning the video hardware robs memory from system memory to display images and video on your

screen. If this is the case, it doesn't matter how much memory you install; Windows won't be able to access all of it because some is always reserved for the video hardware.

Even if you have discrete video hardware that has its own dedicated memory, problems can crop up if the laptop's motherboard or operating system doesn't support the amount of memory that is installed. For example, if a motherboard is limited to addressing 3GB of memory, and you install 4GB, that extra 1GB is never used because the motherboard can't even see it.

Problem: I upgraded a component, and the computer worked great for a bit but then randomly crashed and/or experienced component failure.

Solution: There is a lot of hardware packed into a notebook case, and often, they are engineered to extremely strict thermal tolerances. If you put in a processor, hard drive, memory stick, or other component that generates more heat than did the part it replaced, you increase the chances that the computer will have to operate beyond the thermal tolerance it was designed for, which causes anything from performance degradation to component failure.

When upgrading, check the operating temperature of any component



you are installing and compare it to what is already installed in the notebook. In some cases you can get more powerful replacement components that actually run cooler than the parts that were originally installed, but you have to do your homework by contacting manufacturers or scouring specification sheets.

Problem: I installed a new component, and the notebook doesn't run nearly as long on a charge now.

Solution: All things being equal, more powerful hardware requires more power. The only ways around this when installing internal hardware are to focus on newer hardware that uses a more advanced design so it can be

more powerful while using less energy (processors often fall into this category), or look for hardware that is branded as “eco-friendly” that often doesn’t run as fast but uses less energy (hard drives often fall into this category). If neither of those is an option, consider an external upgrade that uses its own power supply instead of drawing electricity from the laptop’s battery. Finally, check with the manufacturer to see if a battery upgrade is available and purchase that or a spare battery, but bear in mind that higher-capacity batteries add weight and bulk compared to the battery that is already installed.

Problem: I want to upgrade my CD/DVD/Blu-ray drive, but I can’t find replacements at any retailer.

Solution: Optical drives must be custom-made to fit into a specific laptop design, so there’s no such thing as a generic replacement that retailers carry. New internal drives can only be obtained from the manufacturer. The alternative is to purchase an external optical drive and use that instead.

Problem: There is no way to upgrade the hard drive, but I am running out of space and need more.

Solution: The first thing to do is determine what is causing all that clutter. We recommend using a hard drive space analyzer such as WinDirStat (free; windirstat.info) that provides a visual overview of your data and will let you quickly find files that consume the most space. In many cases, digital multimedia files such as pictures, videos, or even large amounts of music are to blame, and you need to figure out a way to offload all those files from the main hard drive while still maintaining access to them.

The best way is to purchase an external hard drive that connects to the laptop’s port. These often have higher storage capacities than the drives that ship with laptops, and you can transfer external drives among computers when necessary. However, there are several

downsides to consider. Some models require external power, which doesn’t do much good when you need to access files on the go. The alternative is an external hard drive that operates using the laptop’s power via the USB port, but these reduce battery life and often don’t compete with hard drives that use external power in terms of performance.

Also, all external drives must be transported with the laptop, meaning you have more to carry and an extra cable to fret about.

An alternative is to subscribe to an online backup service such as Mozy (\$4.95 per month for unlimited backup; www.mozy.com) and archive your multimedia files along with any other large files you access infrequently. Your

Visit the manufacturer’s Web site to find drivers for your particular laptop model.

laptop will still be able to access the files but without requiring local storage space. The caveat here is that you can only access those files when you have an Internet connection, and file transfers take much longer over an Internet connection than they do when you use an external drive. ■

BY TRACY BAKER

Your Problem, Our Solution

Problem: I upgraded my notebook to a new version of Windows using an installation disc or download purchased from Microsoft or another retailer, and now a lot of my notebook’s features don’t work properly anymore.

Solution: Notebook computers tend to come with proprietary hardware, custom Windows installations, and extra buttons that allow quick access to media controls and other features. All of this hardware requires software called drivers in order to communicate

with Windows, and a fresh installation of a new copy of Windows likely doesn’t include all of the drivers your laptop requires.

In some cases, you can remedy this by visiting the manufacturer’s Web site and downloading drivers that are particular to your laptop. Sometimes, these just get the basic hardware up and running, however. To take advantage of special features, such as quick-boot modes designed to bypass Windows and get you to an Internet

browser quickly, you may be out of luck. In this case, you’ll need to reinstall the version of Windows that the computer came with using the recovery disc that came with the computer, as it has all the appropriate drivers preloaded. Then, you should contact the manufacturer for specific instructions on how to upgrade to a newer version of Windows, assuming it is possible at all. You may have to purchase an upgrade disc directly from the manufacturer. ■

Roxio Creator 2010

A Good Software Suite Gets Better

Like its predecessors, Roxio Creator 2010 is a well-rounded program that offers numerous photo, music, video, burning, and sharing tools, and we'll be exploring these in future articles. In the meantime, here's an overview of what's new and improved in the Creator software.

Note that system requirements include: Windows XP/Vista/7; a 1.6GHz processor; 512MB RAM (WinXP) or 1GB RAM (Vista/Win7), with additional RAM for video editing recommended; 3GB free hard drive space; and a 1,024 x 768 DirectX 9-compatible graphics card with at least 16-bit color setting.



Roxio Creator 2010 displays a revamped interface featuring frequent tasks.

frequently accessed features, including burning audio CDs and editing video, and clicking these icons takes you directly to intuitive windows and dialog boxes. You can also quickly locate tasks by clicking any of the icons in the left navigation pane to jump to tasks in the desired category. And, if you haven't used Creator before, or if you're simply unfamiliar with any of these options, no worries—say hello to the Learning Center.

The Learning Center. The Learning Center is a tool designed to familiarize users with the wide range of Creator's capabilities. Dozens of instructive video tutorials walk you through tasks such as archiving data, capturing Web video, creating ringtones, and restoring old photos. Or, you can print out the accompanying PDF (Portable Document Format) file and follow step-by-step instructions as you create your multimedia masterpieces.

Video. Another area that has been overhauled is the video feature, which introduces several time-saving applications. For example, if you're working with a large project, you can preview the video quality before you convert it to another format, schedule the conversion to run while you're off doing other things, and back up your

entire camcorder of AVCHD (Advanced Video Codec High Definition) video directly to disc. Behind the scenes, you'll save time, as well, because Roxio has sped up the video encoding process. (Roxio says it is five times faster than before.) Other notable improvements are integrated Blu-ray capabilities, but keep in mind that you'll need to purchase plug-ins separately.

Photo. Creator 2010 carries many of the photo features of earlier versions, including editing tools and dramatic effects, but of special note is the revamped slideshow feature. The Slideshow Assistant walks you through selecting and editing photos, adding background sound clips, choosing transitions, setting photo durations, adding effects, and finalizing the project.

Music. The music features have been largely untouched, with the exception of a new app that lets you record music from Internet radio and use those files to automatically build a music library. You'll still be able to use Creator to copy CDs, edit audio files, digitize old cassette tapes, create playlists, and more.

Burning and copying. First, here's a reminder that you should follow copyright laws when you burn content, and Creator necessitates this because it will not let you burn copy-protected discs. With that in mind, you'll want to check out Creator's significant number of tools for copying discs. New to Creator 2010 is the Roxio Burn Desktop widget. Whenever you insert a CD/DVD into a disc drive, the icon appears on your Desktop and lets you burn files by simply dragging and dropping. It's full of fun features, including a color-coded gauge, and shortcuts will take you to tasks such as copy, erase, and rename.

Creator 2010 Pro

Roxio has also released a Pro version of Creator 2010 (\$129.99) that, in addition to all the features we've mentioned here, carries tools such as the BackOnTrack app for backing up your hard drive, the dramatic LightZone component for photo enhancements, and built-in Blu-ray functions. No matter which program you use, however, our Creator Quick Studies will help you make the most of Creator 2010 in the coming months. ■

BY HEIDI V. ANDERSON

Microsoft PowerPoint 2007

Favorite Shortcut Keys

Presentation

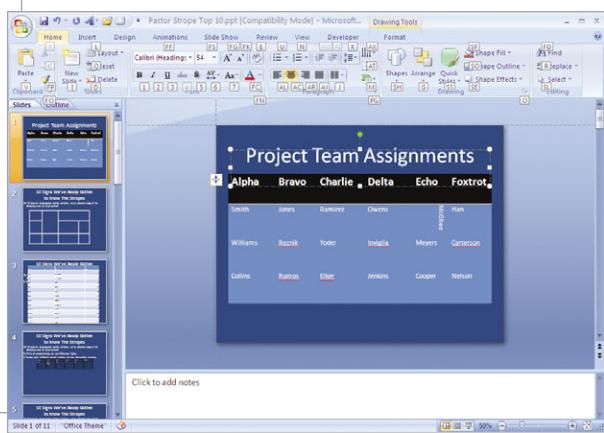
Beginner

WinXP/Vista/7

People truly obsessed with efficiency usually hate taking their hands off the keyboard in the middle of typing. And many times, even the rest of us notice how much motion we waste by moving a hand to the mouse, making a selection, and then putting fingers back in the right place on the keyboard. That's where shortcut keys come in, often providing the fastest way to carry out an action. Just think about the advantages the familiar CTRL-C has over hunting down the Copy command. Below are a few of what we consider PowerPoint's handiest shortcuts. You can find scores more, but we've narrowed the list to those you're likely to use often and that are actually quicker than using the mouse for the same job.

Clear the screen. While you're giving a presentation in Slide Show mode, here's a good way to quickly hide the slide so the audience focuses on

Think you know all of PowerPoint's keyboard shortcuts? Press ALT-H, and you'll see a shortcut for every command on the Ribbon.



you rather than the screen. Press *B* to make it black or *W* to make it white. Press any key to return to the normal Slide Show mode.

Increase/decrease font size. Watch professional graphic designers at work, and you'll notice that few of them change a font's size by highlighting it and using the drop-down font size menu at the top of the screen. It's fairly slow, and who knows whether the best-looking size is 26, 28, or 36 points? Instead, most designers use shortcut keys to bump the font size up or down a few points at a time until it looks right. In PowerPoint, you do this by highlighting the font and pressing **CTRL-SHIFT->** (increase font size) or **CTRL-SHIFT-<** (decrease font size).

Move through text. In the same vein as the point above, you rarely see professional copy editors moving through blocks of text by pressing the

arrow keys or moving the mouse on the scroll bar. Instead, they jump rapidly through copy with the **CTRL** key and arrow keys, which moves the cursor a full word (Left and Right arrows) or a paragraph (Up and Down arrows) at a time. And, bonus! Here's your chance to use those **HOME** and **END** keys you've probably never pressed. **HOME** moves you instantly to the beginning of the active line, and **END** moves you to—you guessed it—the end of the line. Add **CTRL** to these keys to move to the top or bottom of the entire text block.

Move between task panes. This one's especially useful when you're composing text in a slide at the same time you're writing notes to yourself in the Notes pane. Press **F6** (you may need to press it more than once) to jump from the main PowerPoint work space to the Notes pane just below it without taking your hands off the keyboard. You can use **F6** to move back to the main work window, but you'll need the mouse this time because the cursor won't land inside the text box you were working in previously. However, if you use **F6** to move back to Notes again, the cursor *will* land where you last left it.

Hide/show the Ribbon. If you'd like a little more screen real estate for your work, you can hide most of the Ribbon by pressing **CTRL-F1**. You'll still see the titles of each tab, and clicking them reveals the associated commands. Click the tab again to hide the commands. To restore the normal Ribbon, press **CTRL-F1** again.

Select everything on a slide. Sometimes you may want to select all the words or objects on a slide for use in something such as a big copy-and-paste operation. To select all the text in a block, press **CTRL-A** while the cursor is in the text block. To select all the objects on a slide, press **CTRL-A** while the main pane is active.

See every function's shortcut key. We'll close by pointing out that every icon and menu in PowerPoint is accessible through a shortcut key. When you press **ALT-H**, a number or letter appears beside nearly all of them. Press that key (without anything else, like **CTRL** or **ALT**) to access the function. These so-called Key Tips are great for the true shortcut-key junkie, but in many cases, you'll probably find it just as easy to stick with the mouse. ■

BY TREVOR MEERS



Make Firefox your own with a custom theme or persona, two ways of dressing up the browser.

Browsers

Make Firefox Your Own

Mozilla Firefox is a good browser, but you can always improve a good thing by making it your own. Firefox includes three main ways to customize the browser's look: You can change and rearrange toolbar buttons, switch to different themes, and try on new personas.

Customize Toolbars

One of the most practical ways to change Firefox is to rearrange the toolbars to your liking. Right-click one of the browser's toolbars and choose Customize from the pop-up menu. A toolbar button gallery appears. You can drag

buttons you don't use away from the toolbars and drag new buttons you want to use from the gallery to appropriate positions on the toolbars.

The toolbar button gallery has a few other tricks. Near the bottom of the screen, you can set the toolbars to display buttons as icons, text, or both. You can also click the Add New Toolbar button to set up a fresh toolbar for holding even more buttons.

Theme Song

Along with toolbar tinkering, you can change Firefox's overall aesthetics. Firefox includes two methods for altering the browser interface: themes and personas. Generally speaking, changing themes involves a larger download and is more involved than changing a persona.

Themes transform the look of Firefox completely, although most concentrate on colors and toolbar styles. A huge variety of free themes can be found in the gallery at the Add-ons For Firefox page. Browse to addons.mozilla.org and then click the Themes link in the column on the left side of the page. Available themes appear in the main section of the page. You can limit the display using the category list on the left side.

When you see a theme you like, click the thumbnail to see a page with more details and a green Add To Firefox button. Click that button, and a Software Installation window appears. Click the Install Now button to add the theme to

your collection of add-ons. You will need to restart Firefox to see the theme take effect.

If you've installed more than one theme, you can easily switch between them. Click Tools and choose Add-ons. Click the Themes button. You'll see a list of installed themes. Select a theme and then click the Use Theme button. You'll have to restart Firefox again before your selected theme shows up.

This same themes window is where you can delete themes you don't want. Select an unnecessary theme and click the Uninstall button.

New Persona

Personas are a lot like themes, but the changes made by applying a new persona will generally be less drastic than what a theme might offer. Personas typically include a picture or abstract design to dress up the toolbar area.

To use personas, you will either need to install the personas extension or upgrade to Firefox 3.6 beta, which includes personas support as a built-in feature. To get the extension, go to addons.mozilla.org, type **personas** in the Search field, and press ENTER. Under the Personas section, click Download Now. You'll need to restart Firefox to finish the installation.

With the personas extension enabled, go back to the Add-ons page and click the Personas link in the Categories column. As with themes, you can click a persona to get a better view. When you find a look you want to try, click Wear This to install the persona.

You can quickly switch between different personas. Click Tools and choose Personas. In the Personas menu, the My Recently Selected option shows personas you've used in the past. The All submenu leads to a categorized list of all available personas. You can switch without ever going through the Personas gallery. When you want to stop using a persona, just select Default from the Personas menu.

One thing to remember regarding personas: If you install a custom theme, personas might not appear exactly as intended. For the best results, set your theme to the Firefox default. There are limits to how much change you can bring to your browser at once. ■

BY ALAN PHELPS

Online

Outsource Your Virus Detection

Panda Cloud

Intermediate

The best antivirus software does its job and stays out of your way. A new (and free) entry into the field, Panda's Cloud Antivirus (www.cloudantivirus.com), stays way out of your way by moving much of the work online, off of your computer altogether.

Rather than continually updating your local antivirus program with new virus information, Cloud Antivirus stores all of that information online, in the "cloud," where it is always up-to-date. A small program running on your machine checks files on your computer against the online virus database and stops any suspicious programs from running.

Hit The Cloud

To try out Panda's antivirus tool, head to the home page and click the Download It Now button. If you have certain other antivirus programs installed, Panda's install routine may require that you delete them. Follow the on-screen instructions to install the program. You'll need to register for a free account, and you'll probably

need to restart your computer to make sure Panda has installed and launched.

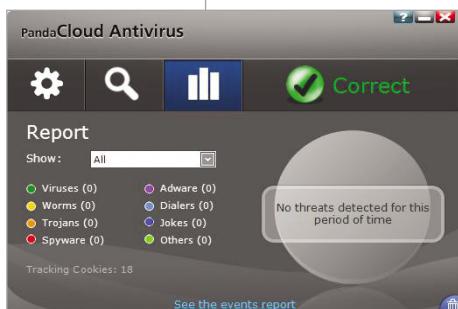
Once Cloud Antivirus is installed, you'll see a tiny panda icon in the Windows Taskbar notification area. That means the program is running, and there's not much you'll need to do at that point. Cloud Antivirus

will notify you if something needs your attention, but for the most part, the program keeps to itself.

Double-click the Taskbar icon to open the Panda Cloud Antivirus interface. You'll find four buttons in a row on the main screen. The Status window displays a large green check mark icon to let you know there are no security problems.

The first button on the left side leads to the main Settings screen, which doesn't have a lot of settings. A checkbox on this screen determines whether Panda should automatically manage viruses, which is basically the whole point of the program. Users connecting through a proxy server can enter the appropriate information by clicking Change Settings.

The second button, which looks like a magnifying glass, leads to a screen with two options: a



Panda Cloud Antivirus installs a small program on your machine but relies on virus definitions stored online.

Quick Scan button of particularly important areas of your file system and a Scan Other Items button that lets you choose entire drives to scan. Panda always works in the background, checking files as they launch, but a manual scan might be a good idea when you first install the program.

A progress bar shows the time remaining for whichever type of scan you choose. The Report screen indicates which threats were neutralized; sometimes open files cannot be immediately deleted but should be erased on the next reboot.

The third button leads to the statistics screen, which offers a mildly interesting pie chart showing the types of malware Panda has banished from your computer. If you're curious, you can limit the chart to particular time periods.

Finally, the small Recycle Bin icon at the bottom of the main screen leads to a list of quarantined programs. Known viruses and other malware are deleted automatically, but merely suspicious files are held in the Recycle Bin area while Panda's labs analyze them. Until they get the green light, these files will not be allowed to run. If a program you know is safe ends up in the Recycle Bin, you can click the button to unblock it.

Set & Forget

The best part about relying on Panda's cloud for antivirus protection is that you never need to worry about updates or making sure you have the latest virus definitions. The virus information Panda consults over the Internet is always the latest data.

That also means, however, that if your computer is not connected to the Internet, Panda isn't very useful. The company says that Panda will still protect against some of the most common threats, but making sure your machine is safe means having constant network availability.

For many PCs, that's not an issue. The Internet is necessary for practically any computing task these days. However, Panda is probably not the optimum solution for traveling laptops that spend long stretches away from the network, especially those that might pick up a virus from unsecure flash drives or other media. Aside from that situation, moving your antivirus routine to the cloud can make a lot of sense. ■

BY ALAN PHELPS

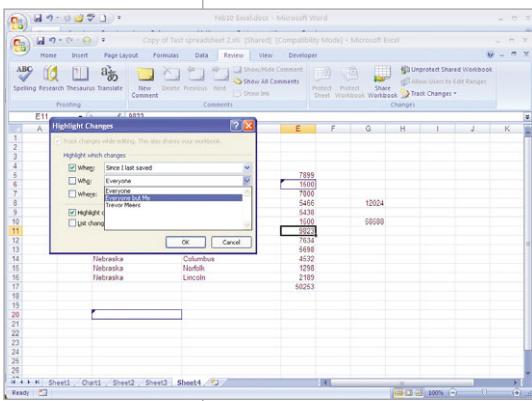
Microsoft Excel 2007

Share Workbooks For Input

Spreadsheet

Advanced

WinXP/Vista/7



Use the Highlight Changes box to get a quick review of exactly who edited what in your workbook.

Most of our Excel documents eventually require input from multiple people. Excel facilitates this give-and-take process with some fairly complex tools for sharing documents with co-workers. Options such as sharing workbooks through document management servers provide powerful options for letting other people tap into a document. In this article, however, we'll stick to a more basic method of collaborating on Excel documents: passing a document around electronically for comments.

Before we get into the process, let's cover what is—short of handing around a hard-copy printout of your workbook—the simplest way of getting others' input. Sending workbooks around in PDF (Portable Document Format) lets you share information

with the confidence that no one will change anything. This approach uses the same read-only format you've probably used to access numerous documents on Web sites. The PDF version of a workbook is no more than a picture of the data, ensuring no one alters a single digit. (It's also useful if some of your reviewers don't have Excel on their computers.) Saving Excel workbooks as PDFs requires a special plug-in, which you can download at office.microsoft.com. (Click Downloads, search for Excel PDF, and click 2007 Microsoft Office Add-in: Microsoft Save As PDF Or XPS.) Once it's installed, you can use Excel's Save As function to convert a file to PDF.

Prepare To Share

You have two options for inviting other users to make comments and changes directly in your workbook file. You can place the workbook onto a server everyone can access, or you can send everyone their own copy of the workbook and assimilate all the changes and feedback at the end of the process. Placing the document onto the server means giving up a level of control because other people will be directly editing the original

workbook. That may be fine in your situation, but for the purposes of this article, we'll cover the process of sending everyone their own copy of the workbook. The original stays with you and changes only when you decide it will.

The first step is setting up your file as a shared workbook. On Excel's Review tab, click Share Workbook. On the Editing tab, click the box beside Allow Changes By More Than One User At A Time and click OK. For an extra level of control, click the Protect Shared Workbook button on the Review tab. Click the box beside Sharing With Track Changes and click OK. This option ensures no one can turn off change tracking, which would reduce your ability to see who did what to your workbook.

Accept Changes

At the end of the review process, everyone will send their edited versions of the workbook back to you. Now it's time to combine the edits into one document that reflects changes you're happy with.

Place all the copies of the workbook in the same folder on your computer or server, click the Compare And Merge Workbooks button on the Quick Access toolbar at the top of the window, and browse to and select the files you'd like to merge. If you don't see the button, you need to add it. Click the Microsoft Office button and Excel Options at the bottom of the list. Click Customize and choose All Commands from the drop-down list on the left side. Scroll down until you can click the Compare And Merge command and click Add and OK. Now you'll see the button in the Quick Access Toolbar.

When you begin the compare-and-merge process, you'll get to see who made what changes to his copy of the workbook and decide whether you want to accept those changes. Each altered cell displays a frame and triangular corner flag. When you hover your pointer over the cell, a message shows you the cell's original content, who changed it, and what change the person made. If you don't see the frame and flags, click the Track Changes button on the Review tab, click Highlight Changes, and ensure that Highlight Changes On Screen is selected.

The Highlight Changes box also includes an option for listing every change to the document in a separate worksheet, which is a handy summary. ■

BY TREVOR MEERS

Microsoft Word 2007

Create Forms To Gather Information: Part II

Word Processing

Advanced

WinXP/Vista/7

In our first article about forms on page 74 of the January 2010 issue, we talked about the difference between older form types, called legacy fields, and the type introduced with Word 2007, called content controls. We also showed you what a form layout should look like. This month, we'll show you how to build a form using content controls; next month we'll tell you about legacy tools.

Create a new Word 2007 document to get started. Because forms are used over and over, you should save them as templates rather than documents. Click the Office button, click Save As, and choose Word Macro-Enabled Template (*.dotm) from the Save As Type drop-down list.

Content Controls

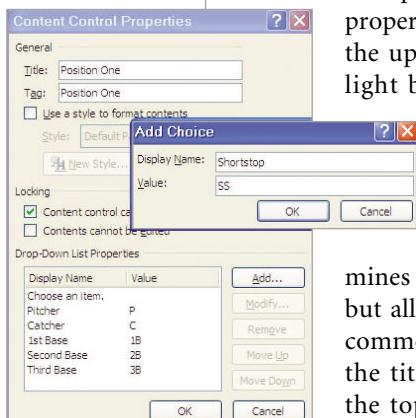
If the Developer tab isn't showing on the Ribbon, click the Office button, click Word Options, and check mark the Show Developer Tab In The Ribbon box. Click OK. Now, click the Design Mode button in the Controls group of the Developer tab.

Placing a content control is a two-part process:

You place the control and then set its properties. Click the Rich Text button in the upper left of the Controls group. A light blue area with the words "Click here to enter text" appears. To access the properties of the control, select it, and then click Properties on the Ribbon.

The type of control determines which properties will be available, but all controls have three properties in common. The Title box lets you type in the title of the control that appears at the top of the control. The Tag box is used by developers who use forms for data processing, which is beyond the scope of this article. Finally, Locking has two parts; you can prevent the content control from being deleted by the user and you can prevent the contents from being edited (so no one would be able to fill out the form—not a good option in most cases).

Now, back to our Rich Text control. Let's say that we want the user to insert his or her last name in this field. By default, the text "Click here to enter text" appears. This is the text the user



You can create content controls where users choose an item from a drop-down list.

clicks and types over to insert information. Replace this text with the words "Last name," making sure that the new text is still in the light color as the original.

The Rich Text and Text controls are very similar. The form creator can designate the style for the text for either type of control. Simply click Use A Style To Format Contents in the Content Control Properties box and then choose a style or create a new one with the New Style button. Rich Text allows multiple paragraphs, whereas Text does not, unless the form creator allows it by clicking the appropriate box in the Properties dialog box. Finally, Rich Text and Text both allow you to cause the field placeholder to be deleted after the user places text into it.

Types Of Lists

The Drop-Down List and Combo Box are also very similar. Both provide a list of choices the user chooses from. The only difference is that the Drop-Down List restricts the user to the choices the form creator defines; the Combo Box lets the user type in a choice not on the list. To add an item to a list, simply click Add in the Properties dialog box. There are two boxes here: Display Name and Value. In order for a user to select an item in a list, both fields must be completed. Word automatically fills in the Value field with the Display Name data you enter. Once you have placed items in the list, you can select it and then modify, remove, or reposition it.

The Picture Content Control is the simplest to place. The only properties to set are those for locking the content. The Date Picker control has a more complex set of Properties, but they are primarily about how you want the date displayed, for example, 3/5/2010, March 5, 2010, or 2010-03-05. Finally, the Building Blocks Gallery control lets you place AutoText, equations, tables, and more. We will cover building blocks in a future article.

See our last article in this series on forms next month when we show you how to use legacy forms, as well as how to protect your finished project. ■

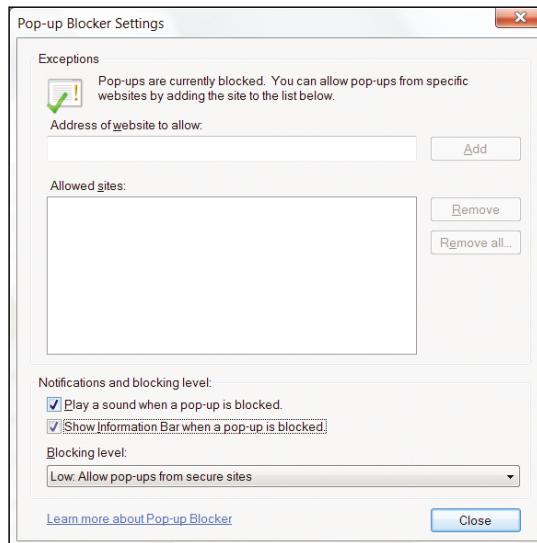
BY TOM HANCOCK

Quick Tips

Secrets For Succeeding In Common Tasks

BY STEPHEN J. BIGELOW

IE8 Pop-up Blocker



Disable visual and audible alerts to quiet the pop-up blocker in Internet Explorer 8.

Question: My pop-up blocker constantly beeps and warns me all the time. It's obviously working, but is there a way to adjust the settings to make it less annoying?

Answer: The pop-up blocker in Internet Explorer 8 provides a visual warning bar as well as an audible beep when a pop-up is blocked. It gets annoying when there are lots of pop-ups to deal with. With IE8 running, click Tools, highlight Pop-up Blocker, and select Pop-up Blocker Settings. Under Notifications And Blocking Level, deselect the Play A Sound When A Pop-up Is Blocked and Show Information Bar When A Pop-up Is Blocked checkboxes. Click the Close button when you are finished making changes. That should quiet IE8. If you use a third-party pop-up blocker, refer to the documentation for specific alert settings or preferences.

Laptops

Question: My laptop gets a bit warm when I use it. Is it worth considering a fan-driven cooling pad for my laptop?

Answer: There is no question that getting a flow of air through the laptop is an important part of keeping it cool, but there are several free options. Before you invest in a cooling pad, try these workarounds. First, check the ventilation openings where the air goes into and comes out of your laptop. In most situations, either the intake or exhaust openings are blocked. For

example, running the laptop on your lap, on top of a jacket, or swaddled in a blanket at bedtime will disrupt the airflow and raise temperatures within the unit. Simply clearing the openings and restoring proper airflow will work wonders. Another way to reduce laptop heating is to reduce power consumption. For example, in Windows Vista, open the Control Panel, select System And Maintenance, and choose Power Options. Next, change the unit's power plan from High Performance down to Balanced or Power Saver.

Windows Firewall

Question: I see that Windows Firewall is running even though there's also a firewall with my security suite. Should I stop Windows Firewall or let them both run?

Answer: When two pieces of software are doing the same job at the same time on a PC, you risk having conflicts that can cause erratic system operation

or crashes. It may not happen, but it can. You can avoid such conflicts from the start by disabling Windows Firewall and rebooting the system so that the Windows Firewall software is removed from memory.

Control Windows Firewall in Vista by opening the Control Panel, clicking Security, and clicking Turn Windows Firewall

On Or Off. (In Windows XP, open the Control Panel, select Security Center, and then click Windows Firewall.) Now, turn off the firewall through the General tab of the Windows Firewall Settings dialog box. If you do choose to disable Windows Firewall, make sure that the firewall feature of your security suite remains enabled.

IE8 Tabs

Question: How can I get new windows to open as an IE8 tab rather than opening a separate IE8 window?

Answer: IE8 provides the convenience of tabbed browsing, and you can control the way that tabs are created and managed. With IE8 running, click Tools and select Internet Options. On the General tab, click the Settings



button in the Tabs area. Opt for pop-ups and links from other programs to open in a new tab rather than a new window. You can also opt to switch to new tabs when they are created. This makes it easier to keep track of new tabs, especially if IE8 has many tabs open.

Adjust the way that IE8 handles tabbed browsing behaviors.

Microsoft Outlook 2007

Configure Microsoft Outlook 2007 to clear the Deleted Items folder for you each time you exit Outlook.



Question: It seems like I'm constantly emptying my Deleted Items folder in Microsoft Outlook. Can I configure Outlook to clear that folder for me?

Answer: By default, you'd need to empty Deleted Items manually, but Outlook lets you control the disposition of deleted items. With Outlook 2007 running, click Tools, Options, and select the Other tab. Select the Empty The Deleted Items Folder Upon Exiting checkbox. Click Apply to save your changes and click OK to exit the dialog box. Now, Outlook will empty the Deleted Items folder for you automatically each time you exit Outlook.

Microsoft Word 2007

Question: I switched to Microsoft Word 2007, but now I can't find the options for saving, proofing, and other features of the program. Where are the Word Options located?

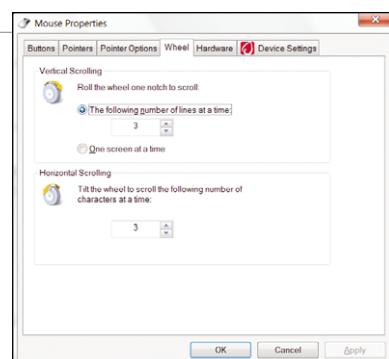
Answer: Office 2007 changed the layout of most controls, including the Word Options. In Word

2007, click the Office button (the big round button in the top-left corner). The Word Options button is located in the lower-right corner of that menu. Click the Word Options button to access display, proofing, saving, and many other options familiar to experienced Word users.

Mouse Options

Question: I like scrolling with my mouse wheel, but I never seem to get the right amount of scrolling. Can I control how far the mouse wheel will scroll?

Answer: You can adjust the mouse scrolling settings through the Mouse Options. In Windows Vista, open the Control Panel, select Hardware And Sound, click Mouse, and then click the Wheel tab. (In WinXP, open the Control Panel, select Printers And Other Hardware, and choose Mouse.) Use the arrows to adjust the scrolling settings. Higher settings will result in larger steps with each click of the mouse wheel (more distance with less wheel movement). Try a variety of settings to find out what works best for you.



Adjust the mouse wheel so that it will scroll an acceptable amount.

Q&A Board

Computers are great when they're running properly. But when you have a computing problem, finding answers can be frustrating. So if you're having trouble with Windows XP or can't find a solution to a computing question or problem, consult the *Smart Computing* Q&A Board. This subscriber-only feature is a great resource for getting quick and helpful responses to your computing problems.

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Read Software Reviews

Web-Only Articles

Q&A Board

Computing Chat Room

Computing Dictionary & Encyclopedia

SmartComputing
In Plain English

Question And Answer Board

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Number of Matches: 1053
This Page: 1 of 42

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View My Questions Or View Received
View Questions Without Answers
Show Log
View Subscribed Questions
View Subscribed Messages
View Chat Rooms
View In Larger Type
How To Use The Q&A Board

Has your question already been asked and answered? Click here to find out.

Status: ACTIVE
Message #: 3557608
Subject: IE8 problem
From: HELLCORNY
Sent: 1/6/2010 8:14:28 AM
Q. Sense updating to IE8 I have had problems with most of my local web sites. ie Banks etc. Either I can't get into them or once in cannot go anywhere. I want to go back to IE7. I down loaded IE7 but when I tried to install it and got the message that I...

[View Full Question and Answer](#) [Edit Me](#) [Click Here To Answer Or Reply](#)

Status: ACTIVE
Message #: 3557609
Subject: IE security
From: MikeHawey
Sent: 1/6/2010 7:42:04 AM
Q. When surfing on IE, I often get windows saying, "Security Warning: Do you want to view only the webpage content that was delivered securely?" How do I disable this? (I have Win XP, home edition). Thanks.

[View Full Question](#) [Edit Me](#) [Click Here To Answer Or Reply](#)

- 1 Log on to SmartComputing.com and click the Q&A Board link.
- 2 To ask your question, click the Post A Question link in the upper right of the page. (Make sure you are logged in to the site).
- 3 Use the Subscribe To This Message To Receive Email Notifications Of Answers link that appears after posting the question to be notified via email when answers are posted.

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Software Reviews

Before laying down your hard-earned cash for a piece of software, check to see what the experts have to say.

Click the Read Software Reviews link at www.smartcomputing.com and then choose a category to see the latest reviews from *Smart Computing*.

Who's Online?

According to recent data from the Pew Internet & American Life Project, 93% of those aged 18 to 29 use the Internet. Eighty one percent of 30- to 49-year-olds, 70% of 50- to 64-year-olds, and 38% of those over 65 go online.



Maintain Your Privacy

Keeping your personal data safe is an ongoing concern for computer users. Read up on how to protect yourself by visiting the Privacy & Security section of the *Smart Computing* Tech Support Center.



Smart Computing's Tip Of The Day

Wireless Network Connection Issues

If you're having trouble connecting to a wireless network with your notebook, you should eliminate the easiest problems first. Check to see if wireless capabilities are enabled on your notebook. Many notebooks have a switch to turn this feature on or off. If your computer can't detect a wireless signal, check to make sure this switch didn't slide into the Off position accidentally.

Storage Capacities

Computers and mobile devices use two types of technology to store most of their data: flash memory and magnetic disk. Both are available in various shapes, sizes, and interfaces, such as SATA (Serial Advanced Technology Attachment) and USB.

Here's a look at some of the most common internal and removable examples of both types of storage technologies, along with the approximate top speeds and the maximum capacities at which they're commonly available for consumers (not necessarily reflecting the products shown).

Lexar MicroSDHC 16GB
\$99.99
www.lexarmedia.com



SanDisk Extreme SDHC Card 32GB
\$388.99
www.sandisk.com



Dane-Elec Capless zMate 32GB
\$171 (estimated street price)
www.dane-elec.com



microSD Card

Top Capacity: 16GB (microSDHC)
Top Speed: 6+MBps (megabytes per second) write (Class 6)

This is a miniature version of an SD (Secure Digital) flash memory card. At just 0.4 x 0.6 inches, a microSD card and its microSDHC (SD High Capacity) variation fit in cell phones, MP3 players, and other mobile electronics.

SD Card

Top Capacity: 32GB
Top Speed: 30MBps read/10+MBps write (Class 10)

The SD standard and its high-capacity brother, SDHC, are very common in digital cameras and camcorders. Like microSD and other flash memory cards, SD cards are sold by ratings that reflect their minimum write speeds, such as 6MBps (Class 6). A faster card in your digicam can give you faster follow-up shots and photo transfers to your computer.

USB Flash Drive

Top Capacity: 128GB
Top Speed: 32MBps read/28MBps write

This extremely common gadget replaced the floppy diskette as the king of pocket-sized personal storage. Also called a thumbdrive, among other things, the ubiquitous flash drive has appeared in FireWire and eSATA (external SATA) form, too.

Desktop Hard Drive

Top Capacity: 2TB (terabytes)

Top Speed: 155MBps read/130MBps write

With a combination of top capacity, a minuscule cost per gigabyte, and impressive speed (at least, for sequential transfers of big files), the 3.5-inch hard drive still reigns as the most popular storage device for desktop computers and HTPCs (home-theater PCs). On the other hand, they're fragile and slow at small file retrieval compared to SSDs (solid-state drives).

WD Caviar Green 2TB

\$249.99

www.westerndigital.com



Notebook Hard Drive

Top Capacity: 1TB

Top Speed: 85MBps read/write

Smaller and thinner than its desktop sibling, a 2.5-inch hard drive—named for the nominal diameters of its internal disks—gives notebooks a great deal of capacity in a tough package. On the other hand, such hard drives are the reason that most laptops seem slow, including ones with fast CPUs and lots of RAM.

Hitachi Travelstar 500GB

\$54.99 (online price)

www.hitachigst.com



SSD

Top Capacity: 1TB

Top Speed: 355MBps read/260MBps write

Despite the high read/write speeds of some models, pricey SSDs are more interesting because they can access data from various cells of their memory much faster than a mechanical hard drive can find files located here and there on its disks. The result is faster boot times and much quicker application launches. A silent, tough SSD is better able to maintain its speed over time and to save notebook battery life when used with the most recent OSes (operating systems).

Intel X25-M

\$289 and up (online price)

www.intel.com

What To Do When You Accidentally Erase Photos



Even in this age of digital photography, which means you can snap free photos all day long instead of paying for each exposure of film, you probably have a few images you consider priceless. Your daughter shaking hands with the dean as she receives her doctorate. Your grandson applying his first bite of birthday cake to his head. Certain moments just don't happen again.

That's why losing photos today is no less of a catastrophe than it was in years past. In fact, you could argue that it's even worse in the digital age because 300-odd pictures that vanish from a flash memory card outweigh the loss of a few frames of film when

someone opens the back of a 35mm camera and inadvertently exposes them to light.

Flash memory—whether it's in the form of a removable card or permanent memory in your digital camera—can forget your picture data for a number of reasons. It could be an accidental drop, a technical glitch, or simply the erasure of the wrong file.

The important thing is that the files may not be completely lost. They may seem inaccessible, but they might still be stored in the cells of the memory, even if you accidentally quick formatted it. The next step is to recover

the files by copying them to another medium or two.

As soon as you realize that one or more photos have disappeared, take the memory card out of the camera so you don't continue to write new images to it. Likewise, if the lost photos resided on your camera's built-in memory, don't use the camera again until you've made an attempt to recover the pics. If you continue to take photos with the same flash memory, you may overwrite some of your lost pictures because the memory controller may view their locations as free space. In fact, if your memory card has a tiny write-protect switch to prevent data from being saved to the card, enable it for now.

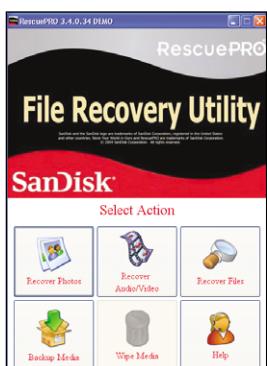
Next, try accessing the memory card in a different card reader, such as an external unit or one built into a notebook. If you're using an external reader—or trying to recover photos from a camera's internal memory, for that matter—connect it to a different USB port or another PC.

There's An App For That

If the ideas above don't work, try to coax the photo files out of the flash memory using free or for-pay recovery software. General-purpose file recovery applications attempt to retrieve all types of digital data. Some specialize in particular kinds of storage media, such as optical discs, so look for a program that supports flash memory.

You may also run across utilities billed as photo recovery applications. These may save you money by leaving out more general data retrieval capabilities from types of storage media other than flash memory.

We've had luck using LC Technology's user-friendly SanDisk RescuePRO,



LC Technology's SanDisk
RescuePRO is soothingly easy to use for those stressful times when your photos need to be rescued from flash memory.

which came bundled with a memory card we bought. It's also available by subscription (\$40 for a one-year license; Windows XP/2000/Vista or Mac OS X 10.4 or higher) at www.lctech.com. Version 3.4 supports most types of memory cards, as well as DVD and Video CD.

Before you buy any recovery software, however, first use its free trial (if available) to find out whether the program can resurrect the files you want.



Desperate times call for desperate measures. A professional data recovery service such as First Advantage Data Recovery Services may be able to retrieve photos and other files that are otherwise inaccessible.

Trial versions come with limitations—most won't let you actually save any recoverable files—but they serve to give you a fair idea of the full versions' capabilities before you buy.

Download RescuePRO, install it on your computer's hard drive (*not* the memory card you're trying to recover), and then launch the application. It will ask you whether you want to run it as a demo or to type in the registration code LC Technology will send you

after purchase. For now, run RescuePRO as a demo, or trial version.

Next, insert your memory card into your PC's reader or connect your camera to a USB port. Click Recover Photos, and then select your memory card's drive letter. After the software scans your memory card, it will show you a list of recoverable file names at the bottom of the screen. Click a file, and RescuePRO may be able to show you a preview of it in the middle panel.

Should you choose to buy RescuePRO, you'll be able to use the Select All and Save buttons to copy recovered files to your PC's hard drive. Afterward, back up the files to a second medium, such as a USB drive.

Go Pro

If software can't help, but the pictures are worth north of \$1,000 to you, consider employing a recovery service such as First Advantage Data Recovery Services (www.datarecovery.net).

Pricing and practices vary, but many services give you a free cost and recoverability estimate after they receive your device. Accept, and a few days later you'll receive a copy of the recoverable files on a disc or drive. Refuse, and the service may ship your camera or card back to you without additional charge.

Realistic Expectations

Of course, not every file can be recovered. A corrupted bit can render a file worthless. A full or secure formatting can erase an entire card's worth of data. And if the flash memory is physically or electrically damaged, even the best recovery service may not be able to help.

That said, in the majority of cases, the right software or service can exhume some or all "lost" photos from undisturbed media. There's some comfort in that. ■

RescuePRO can display previews and the attributes of some "lost" files it finds.

BY MARTY SEMS

How To Fix Common Problems With Password Managers

Passwords are an inescapable part of modern computing, but using them well leaves you in a damned if you do/don't predicament. If you only use one easily memorable password (especially that eight-character oldie but goodie "password"), any moderately savvy hacker could access your account. If you come up with a different nonsensical alphanumeric password for every protected system and Web site you visit, you're going to have a login/password list that's impossible to manage without writing it all down. Of course, if someone finds that list, your life becomes an open playground for identity fraud.

Enter password managers. A password manager is your one-stop resource for keeping track of your alphanumeric, well, everything. Depending on the application, password managers store and safeguard everything from your Gmail password to your credit card account numbers and PIN codes. They can also auto-fill this information for you when you visit a Web page requesting the information you've already stored.

Password managers not only relieve your memory from keeping track of so many different passwords, but they also save you the time of manual entry at each login screen. At first glance, it seems a nearly perfect solution. Of course, nothing is ever perfect. For those times when password managers don't behave as planned, we have some tips on finding a remedy.

Problem: When I go to a new Web page with a login prompt, Internet Explorer's AutoComplete feature has a checkbox marked Don't Offer To Remember Any More Passwords. I selected this, but now I want the

feature back. How do I get it?

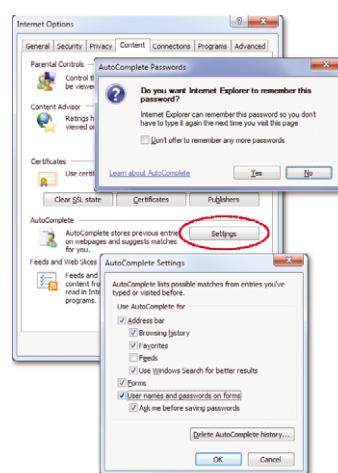
Solution: This is a common problem, usually created by accident because we get so used to turning off annoying things on the Web that we just disable this option box by habit without even really reading it. Fortunately, getting it back is super simple.

In IE, click Tools and Internet Options. Go to the Content tab and click the Settings button in the Auto-Complete section. We recommend checking the options User Names And Passwords On Forms and Ask Me Before Saving Passwords. With the latter option enabled, you'll still be prompted in case there are pages for which you *don't* want your password



saved. This may prove particularly useful on systems used by multiple people.

Note that these options can also fix the opposite problem, when you want to increase security by not having IE remember your passwords. Uncheck the options and then click OK.



Did you get rid of Internet Explorer's built-in password manager? You can get it back by modifying the AutoComplete settings.

Problem: I just inherited/purchased/stumbled across a used PC running Norton Internet Security 2010. How do I reset all of the old password information?

Solution: Password management is increasingly considered a part of system "health," so vendors such as Symantec (www.symantec.com) have moved to integrate the functionality into their security and monitoring suites. But passwords don't always last forever on a system. Even if you haven't adopted a previously owned system, perhaps you've made up your mind to change what type of passwords you use and just want to start over. Many managers will have some sort of global reset capability that

wipes out all prior password information and lets you start over.

In Norton Internet Security 2010, you start by bringing up the main suite control screen from the System Tray. Within the Web area, click the Settings link. This will pop up a new window with all of the Web options. In the Identity Safe area, click the Configure link. This will pop up another window with a Password field. After you enter an incorrect password twice, click Reset Identity Safe Password.

Symantec will now remind you that resetting your password will discard all prior saved login information. Click Yes. Yet another window called Create A New Profile will appear. Select a location for the profile to be stored and then click OK. Enter your new password in the Set Up Norton Identity Safe window, click Next, and then click Save in the Edit Card window.

Symantec now offers the option to import your login information from IE. If you've already adapted IE to your own login information, then this can be useful. If IE still contains the prior owner's info, then there's no point to importing. Assuming the data is your own, importing can be a handy way to beef up your own security. Symantec will show you a list of sites and their stored username/

password data. If you currently have a "poor" password, meaning one that is easy to hack, the program will tell you so. Use this screen as a way to systematically go through your passwords and change them to something more secure. Note that you'll need to also use the Web site's own resources to change your login information in their servers.

Problem: RoboForm seems to have lost all of my Passcards, Identities, and Safenotes. What can I do?

Solution: RoboForm (www.roboform.com) is a standalone password manager that calls username/password combinations Passcards. An Identity is a given set of personal data for a user, such as contact info, account numbers, and so forth. Safenotes are essentially notes, just like you'd find in Outlook or the Sticky Notes in Windows 7, only Safenotes are protected with AES (Advanced Encryption Standard).

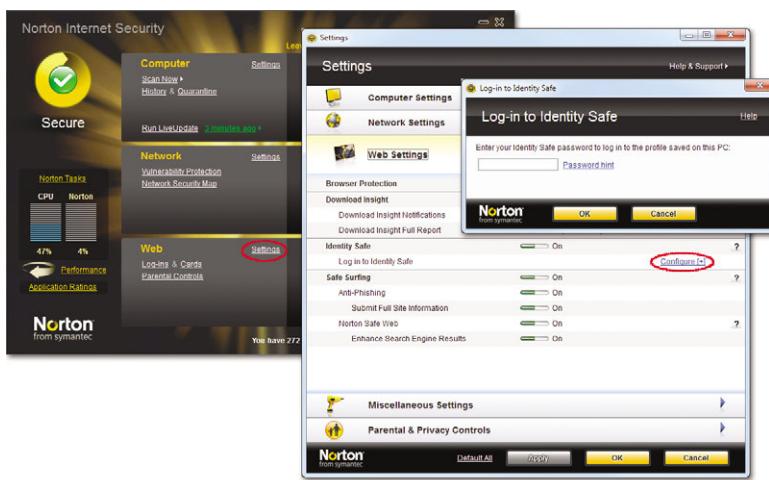
Each of these items gets saved as a file with its own extension. Specifically, Passcards are saved with .RFP, Identities with .RFT, and Safenotes with .RFN extensions. Every once in a rare while, though, whether because of reinstallation, data corruption, or some other factor, RoboForm might "forget" where these files are stored.

The result is that all of your prior RoboForm data seems to have vanished. Don't panic and assume it was deleted. Simply click the Start menu and, in the Search field, enter *.[your file extension type], such as *.RFP. If you're running a version of Windows without an indexing version of Windows Search (early WinXP and before), you may need to instruct the search to look for that text string in file names and scan your local hard drives. If you haven't done it before, make sure your system is set to show hidden files and folders. In Windows XP's Windows Explorer, navigate to Tools, Folder Options, View, and Show Hidden Files And Folders. In Windows Vista and Win7, go to Start, Control Panel, Appearance And Personalization, and Folder Options. Select the View tab, click Advanced Settings, and select Show Hidden Files And Folders.

Once you locate which folder your RoboForm data files are in, go to your browser's RoboForm toolbar, click the drop-down menu on the left, and select Options. Next, highlight User Data and then click the Set Folder button. Browse to the folder in which your search found the missing files and click the OK button twice to set the new location.

Problem: RoboForm's AutoSave dialog box only seems to appear some of the time. What am I doing wrong?

Solution: Most likely, you're doing nothing wrong. There are several factors that might make a password manager display this behavior, depending on the software's unique features. In RoboForm's case, consider the most obvious answer first: Is the AutoSave feature actually turned on? Perhaps someone unintentionally disabled it or tweaked some other functions that are preventing AutoSave from appearing. The equivalent of a trusty system reset in RoboForm is to go into the Options window and click the Set Defaults button in the lower-right



By convincing Norton Internet Security that you really have no clue what your password is, the application allows you to delete and reset all existing passwords—a handy shortcut to a full wipe.

corner. If AutoSave was turned off, this will turn it back on.

Remember that RoboForm has a limit of five input fields in any form page. If there is more than this, AutoSave will not pop up, but you can still use the Save button on the RoboForm toolbar to save the page's data manually. Also, RoboForm requires a form to have a password field, and some just don't. Again, manual saving will work around this. Not least of all, if a blocking Passcard has been created for a site by mistake, AutoSave will not come up for any page on that site. You can reverse this by clicking the Save button on one of the site's pages and then selecting Unblock.

Problem: KeyPad isn't filling in the right fields with my form data. How can I fix this?

Solution: SurfSecret's KeyPad (www.surfsecret.com), like most password managers, is designed to map the text strings you give it to certain fields within common Web forms. KeyPad has three fields it can map: User Name, Password, and Other Info. If for some reason these don't map correctly to your Web page's form, you can manually override KeyPad and "teach" it how to apply your data.

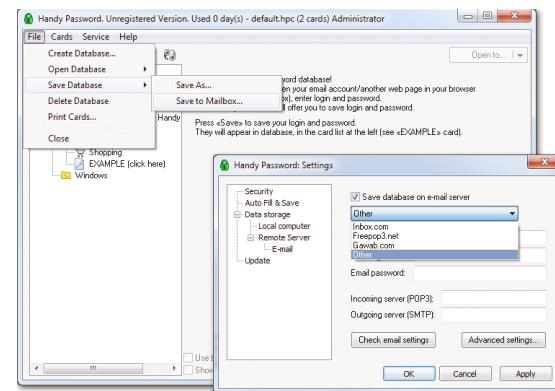
From the browser's KeyPad toolbar, open the drop-down menu and select

Map User/Pass Fields. KeyPad will then provide a list of all input fields found on the page. From here, you simply match which of your three text strings you want matched to which input fields.

As a side note, we recommend using KeyPad's password generator. This is a feature found in several password editors. You press a button and the program delivers a strong password based on a few criteria you provide. Then you simply copy the generated password into your manager's login data list and the Web site's account information. This copying procedure not only averts any potential typing errors (very possible, including when the user mistypes the first entry and then copies it into the re-entry field), but also thwarts any potential keylogging malware that might be recording keystrokes and reporting them to hackers.

Problem: I use multiple PCs across multiple locations and need an easy way to get my passwords synced across them all. How can I do this?

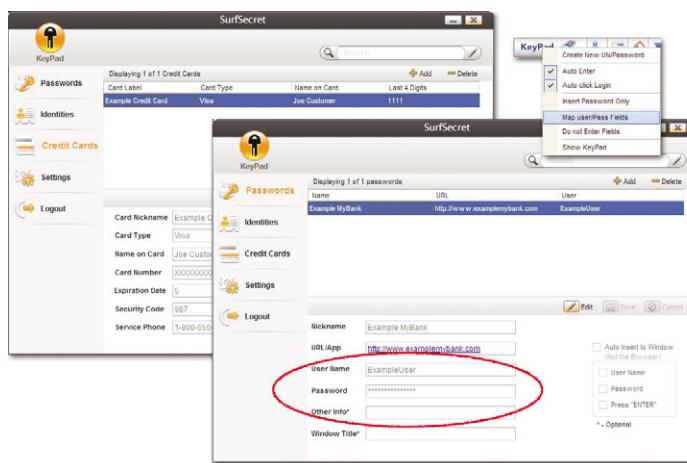
Solution: One of the best benefits of standalone password managers is



Need "anytime, anywhere" access to your login/password lists? Handy Password manager lets you store the data on an email server and send it to yourself wherever you need it.

that the best programs usually support export to a USB flash drive. With this, you store your encrypted password/login database to the flash drive, typically with the program executable so you can install the manager on any system you please (license allowing). Because you have the password database in your pocket, it's always on hand and ready to be stored on a new PC.

However, flash drives can get lost and may not be allowed in certain businesses. The Handy Password manager (www.handypassword.com) came up with an interesting alternative. You can take your password and account info database and upload it into your choice of email server. The program's manual will step you through this, but essentially, you supply your email account login information and Handy Password takes care of the rest. To retrieve it, you select File, Open Database, and From Mailbox (or simply click the Open From Mailbox button). Then, log in to the database with your Handy Password master password and open the file. As with the USB approach, the new system will need to be running Handy Password, plus it will also have your email account information configured. ■



No password manager is perfect, and sometimes they have to be manually shown where to apply your data. KeyPad lets you do this with up to three fields and then save the process for future reuse.

BY WILLIAM VAN WINKLE

How To Install A Powerline Network

Wireless networking is a huge convenience for a lot of people in a lot of places, but it has plenty of limitations. Depending on how homes are made—construction materials, wall placement, and so on—2.4GHz Wi-Fi signals can suffer from slow performance, short coverage ranges, and occasional “dead spots” in which Wi-Fi signals simply won’t work. Wired Ethernet connections are typically best, but running cables through walls is usually an unjustifiably expensive proposition for consumers.

When you can’t afford Ethernet throughout your house and wireless proves too problematic, your next best bet may be powerline networking. The central idea of a powerline network is simple enough: Powerline adapters are “wall warts,” blocks the size of a small fist that plug into a wall power outlet and feature an Ethernet port, typically on the bottom. One adapter connects to your router or switch via Ethernet. Additional adapters plug into the wall nearby and connect to your Ethernet-ready “target” devices, such as PCs, media adapters, printers, and so forth. You might think of powerline links as Ethernet extension cords.



A few powerline adapters, such as this Linksys PLS300 (\$99.99; www.linksysbycisco.com), feature an integrated switch. This particular unit allows you to connect up to four Ethernet-based target devices into one wall outlet.



What You'll Use

As with any network, the idea is to link multiple systems and/or devices together so they can exchange data. For example, you might back up work files to a network-attached storage drive, send a PC’s music files to a network-enabled home theater, or link a gaming console to the Internet. The amount of speed required for a given application will vary according to several factors. Do you care if your system backs up in an hour or six hours if it happens while you sleep? Probably not. On the other hand, streaming even a single high-definition video can require a speed of 20Mbps (megabits per second) or more—something

that would have been impossible over the 14Mbps HomePlug 1.0 technology standard in the powerline networking world up until late 2005.

Today, most powerline adapters adhere to the HomePlug AV specification, which carries a maximum theoretical specification of 200Mbps. We say “theoretical” because every bit of real world intercession—from noise thrown onto powerlines by electronic devices to signal drop-off (attenuation) over distance—will deteriorate powerline networking performance. In reality, HomePlug AV adapters will usually deliver between 10 and 80Mbps in normal conditions. So before anything else, you want to make sure you’re using HomePlug AV-generation powerline adapters, not the older 14Mbps gear or 85Mbps HomePlug 1.0 plus Turbo adapters. Throughout the networking world, “turbo” usually connotes a proprietary technology meant to build on an older generation but not be fully compliant with the forthcoming standard.

Because it takes a minimum of two nodes to make a network, your first powerline network purchase will typically be a kit of two matched adapters, with the option to buy additional adapters as needed. As mentioned above, one of these will need to connect to your router or Ethernet switch. The switch should offer at least 100Mbps Fast Ethernet ports, although we highly recommend Gigabit Ethernet ports to avoid any current or future bottlenecking. The powerline adapters, however, may not offer matching Gigabit ports. Most of the units we’ve seen to date only offer 100Mbps Fast Ethernet ports. So even if these adapters were able to reach their theoretical maximums of 200Mbps, they’d be limited by their Ethernet ports. But don’t worry about this limit too much now. Apart from PCs doing large file transfers, there really are no consumer devices able to use more than a single 100Mbps connection for any given application. For example, the highest



Netgear's XAVB101 kit is about as simple as they come, featuring two HomePlug AV adapters sporting little more than a Security button, recessed reset button, and an Ethernet port.

bandwidth you're likely to find in a modern HD video stream (often considered the most demanding of consumer apps) is about 40Mbps. This is why today's client devices, regardless of application, almost all come with Fast Ethernet rather than Gigabit ports.

Powerline adapters will usually ship with bundled Ethernet cables. CAT 5 cabling is meant for 100Mbps connections. If you do end up with Gigabit-enabled powerline adapters someday, make sure they come with the CAT 5e or CAT 6 cabling needed for 1,000Mbps speeds.

Beyond the powerline adapters, router/switch, and cabling, the last necessary piece is the target device(s). Essentially, anything with an Ethernet port can be a target, from PCs to Xboxes to the latest network-ready LCD televisions. From a powerline setup standpoint, all target devices are the same.

Simple Setup

The unsung beauty of powerline networking is that, compared to most networking options, it's ridiculously easy. In fact, in following the setup

process Netgear recommends for its XAVB101 adapters (\$129.99 for a kit with two adapters and \$69.99 per additional adapter; www.netgear.com), the whole affair boils down to six steps. We'll refer to our example adapters as units A and B.

- 1 Plug an Ethernet cable into adapter A.
- 2 Plug adapter A into a power outlet near your router/switch.
- 3 Plug adapter A's Ethernet cable into an open LAN port on the router/switch. (This shouldn't be confused with the router's WAN port, which will probably be connected to your broadband modem.)
- 4 Plug an Ethernet cable into adapter B.
- 5 Plug adapter B into a power outlet near your target device.
- 6 Plug adapter B's Ethernet cable into the target device's Ethernet port.

That's it—seriously. At this point, most powerline devices will find each other and "associate," meaning they'll

complete a network connection with each other via the home's power lines.

Now, there is a security concern you may wish to address. Because data now flows all across your power lines, there's no distinguishing between inside and outside outlets. For that matter, your data might bleed over into an adjacent residence, especially in a condominium or apartment complex. You can't block this data from traveling beyond your interior outlets, but you can encrypt the data so that it's meaningless and unusable to any potential eavesdroppers.

Different products deal with this encryption issue in different ways. HomePlug-based adapters are required to ship with an integrated password (similar in implementation to Wi-Fi's SSID), but, as with Wi-Fi routers, this is a factory default password (HomePlug or HomePlugAV) easy enough for anyone to guess. Because of this, many newer model powerline adapters have introduced safer methods. Netgear's Powerline AV kit ships with a 16-character key printed on the adapter's rear-face sticker. Rather than forcing you to write down and input this code into bundled software, you merely need to press the Security button on the adapter for two seconds. From that point, you have two minutes to press the Security button (for two seconds again) on another Netgear powerline adapter plugged into your network. This syncs the same encryption key across both adapters. The key stays fixed inside the adapter even in the event of power failure or unplugging. If you have more than two adapters on the network or you need to add more adapters after the initial syncing, push the Security button on the additional/new adapter for two seconds,



Not all powerline adapters are "wall warts." The back of this ZyXEL PLA-400v2 (\$94.99; www.zyxel.com) shows a "desktop" form factor more suited to sitting on a shelf.



Plaster Networks' IX2 isolator does an incredible job of filtering out interference from "noisy" devices that can interfere with powerline communications.

and then press and hold the Security button on any other existing adapter on the network within two minutes.

Anything Else?

When you've spent as many years as we have testing and using network

gear, the quickness and simplicity of powerline setup seems too good to be true. So here's a little honesty: Setup is the easy part. What may cause problems is the deterioration of powerline signals over distance and the fluctuation of these signals as other electronics get used in the home. Of all things, cell phone chargers are one of the worst culprits at injecting noise into circuits, according to Plaster Networks (www.plasternetworks.com) CEO Jeff Scroggin. He compares noisy devices to someone whispering next to you in a lecture hall. The speaker may not hear the noise, but the nearby proximity can make it very difficult for you to hear the lecturer accurately.

Powerline networks use the 2MHz to 28MHz frequencies on a power line, a range not used by other devices. However, "noisy" devices can spill interference into this band. This is why powerline adapters that use additional noise filtration technologies generally realize better range and higher performance. It also means you may have to do some trial and error to find out which devices might be responsible for shoddy network performance. Vacuum cleaners are infamous for temporarily killing powerline networks. Start with devices closest to the powerline adapter since these are likely to have the loudest "whisper" effect.

If you find one or two noise sources and can't move them away from the adapter, consider a standalone noise filter, such as the IX2 isolator from Plaster Networks. These retail for

\$24.95 each, but when we tested it in our office, using the IX2 yielded a 25% improvement in connection speed, just by filtering a nearby lamp, Wi-Fi access point, and netbook power adapter.

Most powerline networking vendors will tell you to avoid plugging into power strips. This is good advice. However, the reason for this advice is mostly about line noise. If you only have a couple of non-noisy devices plugged into a high-quality strip, your powerline adapter may still work on the strip if you have no other outlets available.

Noise aside, if you can't connect to your devices by following the steps above, double-check the cable connections to each adapter and device. After that, make sure your outlet is actually turned on, because some outlets are controlled by an in-wall switch. (Try another device in the outlet to make sure.) Barring those, the problem is usually related to an unsuccessful security setup. If the adapters don't have their encryption keys synced up, all data passed between them will remain garbled. Hold down the reset button on all of your powerline adapters and then try going through the security setup again. Keep in mind any time limit, such as Netgear's two minutes, for completing the security setup.

Again, does it all sound too easy? Sorry—it is. For once, enjoy an easy networking job! ■

BY WILLIAM VAN WINKLE



Monster Cable's PowerNet 200 (\$279.95 for a two-unit kit; www.monstercable.com) adapters not only use additional noise filtering for better performance, but they also feature a pass-through power plug on the left and right sides so you don't lose any outlet ports.

EXAMINING ERRORS

COMPILED BY THE SMART COMPUTING STAFF

Error messages rarely provide clear explanations of the problems they represent. Some are riddled with technical jargon. Others have seemingly indecipherable codes. And some tell you exactly what the problem is but don't tell you how to solve it.

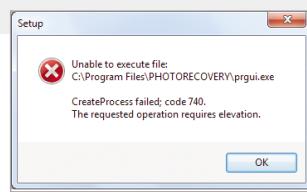
Each month, we take the mystery out of error messages that flummox our readers. Every solution includes the message in its original form, a plain-English translation of that message, and step-by-step instructions for solving the problem.

If you have questions about an error message, email us (errormessages@smartcomputing.com), and we'll try to decipher it. Tell us what version of Windows you are using, give the full text of the error message, and provide as many details in your email as possible. Volume prohibits individual replies.

PHOTORECOVERY 2009

Error

Unable to execute file: C:\Program Files\PHOTORECOVERY\prgui.exe.
CreateProcess failed; code 740. The requested operation requires elevation.



Translation: You may encounter this error message while installing LC Technology Photorecovery or Photorecovery Professional 2009 (www.lc-tech.com) on a Windows 7 computer. (Photorecovery 2009 is a tool that retrieves deleted photos from hard drives, memory cards, and other types of data storage.) The message means that you are not running the installation in Administrator mode.

Solution: You can solve this problem by restarting the installation in Administrator mode. To exit the current installation, click the message's OK button. The message will disappear, and the installation will halt.

Next, run the installation in Administrator mode. Right-click the prwinuninst.exe file (this is the file that you double-clicked to start the installation earlier) and then click Run As Administrator. If your user account is an Administrator account, the installation will start immediately. On the other hand, if your user account is a Standard account, a User Account Control window will display an administrator account name and request the password. If you have this user's password (and permission, of course), enter it in the Password field and then click Yes. The installation begins without trouble. ■

KEYBOARD

Error

KBD.EXE has encountered a problem and needs to close.



Translation: This error sometimes appears in systems that have a keyboard that includes multimedia buttons. The message typically shows up in Windows Vista PCs, but it may appear on other systems. It means that the file affecting the media buttons is not functioning correctly.

Solution: You may be able to resolve this problem by re-installing your keyboard's software. Visit the support section of the manufacturer's Web site to find the latest version of the software.

If you don't want to bother with new software and would rather just stop the message from appearing, click Start and then type **msconfig** in the Start Search field. Click Msconfig when it appears in the Programs list. At

this point, UAC (User Account Control) may prompt you for your permission. Click the Continue button (or enter your password, if UAC requests it).

When the System Configuration window appears, click the Startup tab and then find KBD.EXE in the list below. Uncheck its checkbox and then click OK. A second window may prompt you to re-start the computer. Click Restart if you don't have any other applications open. If you do have applications running, click Exit Without Restarting, close the applications (to avoid losing data) and then shut down the computer by clicking Start, the arrow icon next to the lock icon, and then Shut Down. The message should not appear when you restart the computer. ■

WINDOWS MEDIA PLAYER

Error

Windows Media Player encountered a problem while playing the file.



Translation: This error message may appear on a Win7 PC when you try to open a video or music file, either on your computer or via the Internet. The message may mean that the server hosting the file is experiencing a problem, or it may mean that your sound card isn't working correctly.

Solution: Microsoft recommends trying to download the file again later, if you're working with a file that is online. The server's problem may be temporary, in which case you can probably access the file later.

If the file is on your computer, make sure your sound card is enabled and that it has the latest driver. Click Start, right-click Computer, and then click Properties. When the System window appears, click Device Manager. In the

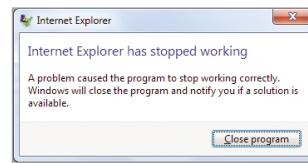
Device Manager window, click the arrow next to Sound, Video, And Game Controllers. Look at the device name that appears (such as High Definition Audio Device). If a small arrow (pointing down) appears near this name, your sound card is disabled. Right-click it and then click Enable. Return to your audio (or video) file and try to start it again.

If the sound card name doesn't have that arrow, check for updates. Right-click the sound card name and then click Update Driver Software. Click Search Automatically For Updated Driver Software. Windows will search online for a new driver update. If this search doesn't locate a new driver, visit our online Tech Support Center (www.smartcomputing.com/techsupport) and see the Driver Education section for more information. **I**

INTERNET EXPLORER

Error

Internet Explorer has stopped working. A problem caused the program to stop working correctly. Windows will close the program and notify you if a solution is available.



Translation: You may encounter this error message when running IE (Internet Explorer) 7 or 8 on a Vista or Win7 PC. The message usually means that an add-on (a separate tool for IE, such as a toolbar) is preventing IE from working properly. The message usually starts when IE starts and may prevent you from using IE.

Solution: The fastest way to stop this error message is to reset IE to its original settings. Performing a reset removes all changes you made to the browser and disables all add-ons. You can reinstall the add-ons (one-by-one) later to determine which add-on is causing the problem.

If the error message doesn't prevent IE from running, open IE and then click Tools and Internet Options. Click

the Advanced tab and then click the Reset button. When the Reset Internet Explorer Settings window appears, click Reset again. At this point, you should be able to use IE without the error message appearing.

If the error message prevents IE from running, click the Start button and then enter `inetcp1.cpl` in the Start Search field (the Search Programs And Files field in Win7). Press the ENTER key. When the Internet Properties window appears, click the Reset button on the Advanced tab. Click Reset again and then start IE. You shouldn't see the error message again.

If this tip doesn't resolve the problem, try restoring Windows to an earlier configuration (preferably, a date that is earlier than the day the error message first appeared). To start System Restore, click Start, All Programs, Accessories, System Tools, and System Restore. **I**

 **Error Messages Online**

Error Messages
If you're getting a specific error message, this is the place to start.
[Browse Error Messages Alphabetically](#) (Try this first.)
[Search By Error Message Text](#)

 Don't see your error message here? Visit the *Smart Computing* Tech Support Center (www.smartcomputing.com/techsupport) to search our database of common error messages and PC problems.

Pest Control

Remove Stubborn Bugs

Security Tool

Description. Security Tool is yet another example of malware that gets into your system through social engineering (tricking a user into installing it rather than sneaking onto a system by exploiting a security flaw). It starts when unsuspecting users visit certain Web sites that trigger false security pop-up warnings. These warnings claim that systems are infected with a variety of malware and direct users to download Security Tool to fix the problems. Unfortunately, Security Tool is a phony anti-malware application. Rather than scan your system, Security Tool reports numerous false infections and tells you you'll need to pay for the full version to remove and repair the infected files. Whatever you do, don't try and remove the supposedly infected files, as they're important system files, and removing them could prevent Windows from booting properly.

How to tell if Security Tool is on your system. Security Tool requires

some actions on the part of the user, so if you've stumbled across a Web site that suggests your system might be infected and followed the suggestion to download and install additional anti-malware protection, you may be infected with Security Tool. There are other applications similar to Security Tool, however, so only follow the directions below if you see a blue and white window labeled Security Tool.

How to manually remove Security Tool. There's no need to pay for an upgrade to remove Security Tool. While removal is a bit more complicated than using the Add Or Remove Programs tool in the Control Panel (Uninstall A Program tool in Windows Vista/Win7), removal is not unduly complicated. As a result, your best bet is to try and manually remove Security Tool.

Because Security Tool starts up every time you log in to Windows, you'll get an error message if you try to remove Security Tool. Your first step, then, is to stop the Security Tool process from running. Press CTRL-ALT-DELETE and select Task Manager (in Windows XP) or Start Task Manager (in Vista/Win7).

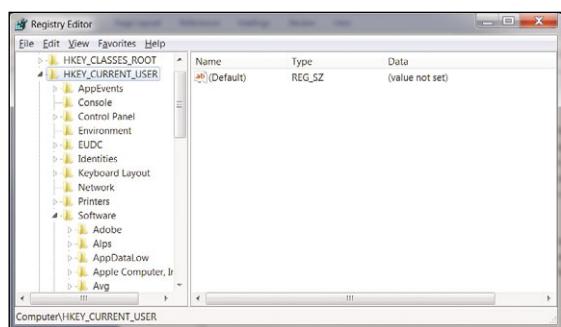
Make sure the Process tab is selected and click the Image Name column to sort by name. Naturally, Security Tool isn't listed here as Security Tool, but rather a random string of numbers. Click the string of random



numbers and click the End Process button to stop Security Tool from running in the background.

Once Security Tool is no longer running in the background, you can delete the Security Tool files. Open My Computer (Computer in Vista/Win7) and enter C:\DOCUMENTS AND SETTINGS\ALL USERS\APPLICATION DATA in the Location field. Note that Vista and Win7 do not contain this directory by default, but a "junction" (similar to a shortcut) is created here when applications that require this directory are installed, so it should still be present if Security Tools is installed on your system. Again, Security Tool hides in a directory named with random numbers. Right-click this directory and click Delete. Don't forget to remove these files from the Recycle Bin, as well. The next step is to remove Registry changes added by Security Tool.

Warning: Always take care when editing the Registry, as any incorrect changes could damage the OS (operating system). Before making any changes, you should back up your Registry. Press the Windows logo key and the *R* key simultaneously to open the Run dialog box and type *regedit*.



Security Tool installs several new entries in the Windows Registry that you'll want to remove. Find the proper folder on the left side of the Registry Editor, right-click it, and select Delete. As always, you need to exercise caution when editing the Registry.

Click File and then click Export. Select the folder where you want to save the backup, give it an appropriate name, and click Save. If something should go wrong, you can restore your Registry by opening the Registry Editor, clicking Import in the File menu, and selecting the file you just saved.

The next step is to remove Registry keys added by Security Tool. On the left side of the Registry Editor window, navigate to HKEY_CURRENT_USER\SOFTWARE. You should see an entry under Software for Security Tool. Right-click Security Tool and select Delete. Next, navigate to HKEY_LOCAL_MACHINE\SOFTWARE\MICROSOFT\WINDOWS\CURRENTVERSION\UNINSTALL. Again, right-click the Security Tool entry below Uninstall and select Delete.

With the Registry entries and files removed, there is one final step. Security Tool creates an entry in the Startup program group that will continue to try and launch the malware even after it's gone. To avoid annoying errors, you should remove this entry by opening the Start menu, selecting All Programs (or Programs), and navigating to the Startup folder. Right-click the entry with random numbers (again, this is Security Tool attempting to hide) and click Delete.

Backdoor.FakeUtility

Description. This Trojan usually arrives via email and may claim that it will reactivate an old email account if you save it and run it. Instead of reactivating an email account, it installs itself on your system and configures itself to start every time you log in to Windows. The software attempts to contact a remote server every 15 minutes or so.

How to tell if Backdoor.FakeUtility is on your system. By design, Backdoor.FakeUtility is designed not to be noticed. However, because Backdoor.FakeUtility requires some action on the part of the user, it can't remain completely hidden. If you're noticing



Spybot Search & Destroy can find and remove a wide variety of malware from tracking cookies to Trojans. Because it can find and fix Backdoor.FakeUtility, it's the easiest way to uninstall this Trojan that usually arrives via email, but Spybot can help find and remove other malware, as well.



A full scan in Spybot Search & Destroy might take some time, but it's needed to locate Backdoor.FakeUtility or any other Trojan that might be on your system. Be sure to update Spybot before beginning the scan to ensure you're working with the latest definitions.

strange Web pages opening, slow Internet connectivity, or other strange occurrences and you've recently opened odd email attachments, you should definitely scan your system using security software. Even if you don't have this particular Trojan, there's a good chance you have another nasty program on your system that's up to no good.

How to remove Backdoor.FakeUtility with Spybot Search & Destroy. Luckily, well-known anti-malware application Spybot Search & Destroy recently updated itself to recognize Backdoor.FakeUtility. To remove Backdoor.FakeUtility, start by installing Spybot Search & Destroy free at www.safer-networking.org/en/download.

(From here, you may choose from one of many different servers, known as mirrors.)

Once the download is complete, open the directory where you saved the installer and double-click it to begin the installation process. Follow the installation instructions (default settings should be fine if you're not sure what the installer is asking). When installation finishes, click Finish to run Spybot Search & Destroy (and integrate it with Windows Security Center).

Because Spybot can make changes to the Windows Registry, it's a good idea to back up your Registry before you begin using the program. The first time you run Spybot, it'll prompt you to back up your Registry. Click the Create Registry Backup button and click Next when the backup finishes. If you want to read tutorials or help files, you can do so before you begin using the program. Otherwise, click Start Using The Program.

The first thing you should do is search for recent updates. Click Search For Updates and select a local mirror to download updates from. Select updates you want to download and click Download. After the update, Spybot will prompt you to Immunize the system and run a full scan. Immunization lets you block potential spyware in the future. Click the Immunize icon on the left side of the main Spybot window. Finally, run a system scan by clicking Search & Destroy and then clicking Check For Problems.

Once the scan is complete, Spybot will list found problems at the bottom of the main window. If it found Backdoor.FakeUtility on your system, it should be listed there. Make sure there's a check mark next to Backdoor.FakeUtility and click Fix Selected Problems. This should do the trick, but reboot and perform another scan to make sure Backdoor.FakeUtility is gone. ■

BY CHAD DENTON

FAST FIXES

COMPILED BY CHAD DENTON

Safari 4.0.4

Update: Apple's updated Safari Web browser includes increased stability and performance along with better JavaScript performance. For those who commonly search through many items in their browser's history, the new update also includes improved history search capabilities. Finally, the latest version offers improved stability for third-party plug-ins.

Installation: As with iTunes, software updates are handled through Apple's Software Update tool. This tool should ask for permission to install new updates when they become available, so you may already have the latest version on your system. If not, open the Start menu, click All Programs, and click Apple Software Update. Safari should appear in the Updates field. Make sure the box next to Safari is checked and click Install. Follow the directions.

www.apple.com

Pidgin 2.6.4

Update: This open source multiplatform IM client, which is compatible with AIM, Yahoo, and Google Talk, rolled out a new version with plenty of bug fixes. Fixes relate to offline message retrieval for AIM users and random crashes for MSN and XMPP (Google Talk) users.

Installation: Users can download the latest version at www.pidgin.im/download. Click the Download Pidgin graphic and save the installer to your hard drive. Once the download is complete, open the folder where you saved the installer and double-click to run. Follow the installation instructions.

www.pidgin.im

Thunderbird 3.0

Update: New features in this popular desktop email client include an

Advanced Search feature, a new mail account setup wizard, tabbed email messages, a better address book, and improved Gmail compatibility.

Installation: You can download the latest version from www.mozilla-messaging.com/en-US/thunderbird. Click the Free Download button and then choose an appropriate directory in which to save the installation file. Once the download finishes, open the directory where you saved the installation file and double-click the file to run it. Follow the installation instructions.

www.mozilla-messaging.com

SyncToy 2.1

Update: Microsoft's synchronization tool makes it easy to keep files

synchronized across a network. The latest release includes a variety of performance upgrades and bug fixes including faster file copying.

Installation: To download the latest version of SyncToy, visit www.microsoft.com/downloads and type synctoy in the Search All Download Center field. Press ENTER, click the SyncToy 2.1 link, and scroll down the page to the Files In This Download section. Click the Download button next to the proper version (x64 if you have a 64-bit processor or x86 if you have a standard 32-bit processor). If you have an older version of SyncToy installed, synchronize all folder pairs and then run the setup file and follow the installation instructions.

www.microsoft.com

FIX OF THE MONTH

Opera 10.10 For Windows

Update: While numbered as an incremental update, the latest Opera release sports a pretty major upgrade. Opera 10.10 is the first version to support Opera Unite, which allows you to easily share content with other users. Once you've created an Opera Unite account, you can add applications that allow you to share specific data, such as files or folders. One application even turns your system into a Web server. Each application generates a specific URL you can share with others. Once the URL is entered, friends and family will be able to see your content (you can password protect the content if you wish and opt to share the link via Facebook, Twitter, or Delicious.com). Some applications are geared toward other Opera users (such as the Messenger application that lets you share messages with other Opera users), but most applications don't require Opera. The biggest catch is that, because you're sharing data directly from your PC, you need to have Opera running and your PC must be online for others to access your content. Nonetheless, Opera Unite is a handy way to share content with others or just make content on your Desktop more readily available when you're away.

Installation: Updating to Opera 10.10 is relatively easy. Click Check For Updates in the Help menu. When notified that a new upgrade is available, click Download And Install (if you don't want Opera to automatically download and install new updates, clear the checkbox next to Automatically Install Updates Without Notification From Now On). The new version will install itself the next time you open Opera. Alternatively, you can download Opera 10.10 from www.opera.com/browser/download.

www.opera.com

Q&A

Need help with your hardware or software? Looking for simple explanations on technical subjects? Send us your questions!

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Windows

Q I own an HP Pavilion dv6000. I have expanded the memory from 2GB DDR (double-data rate) memory to 3GB hoping to enhance the computer's performance. It might have helped a little, but not much. The operating system is Windows Vista. If I upgrade to Windows 7, will this help my problem?

A One of the biggest complaints Microsoft received with the introduction of Vista

was its heavy demands on most computers. Unless you had a top-of-the-line computer, you weren't able to use some of the fancy Aero graphics, sometimes making the whole operating system sluggish. In designing Win7, Microsoft made a concerted effort to reduce the system requirements. You didn't specify the configuration you chose with your dv6000, but in our experience, you'll have far superior performance with Win7 than with Vista. **I**



Online

Q I started working at a new company, and a friend has told me that the company monitors where we surf and even our email. She said the proxy server keeps an eye on everyone. What is a proxy server?

A Before you worry too much about Big Brother in the workplace, we suggest you talk to your human resources department. Most companies have an AUP (acceptable use policy) document that outlines what you can and can't do with your computer at work.

It's important to understand that from a company's perspective, the computer, its software, and anything you do on the computer is company property. The corollary is that the company is responsible for what you do on the computer. Therefore, busi-

nesses use AUPs to protect themselves and to protect you.

From a privacy perspective, the safest course of action is to assume that you have none when using a work computer. Most companies simply want to be sure that you're not spreading an email virus or being inadvertently steered to an inappropriate Web site. Using a proxy server is one of the easiest ways for a company to both block these Web sites as well as improve the performance of legitimate Web surfing. A proxy server keeps a copy of each Web page a user requests, so that when the next user visits the same site, instead of retrieving the Web page from across the Internet, the proxy server just dishes up the copy it has. This speeds up Web surfing as well as reduces the cost of a company's Internet connection. **I**



Windows

Q I'm buying a new computer; it comes with Windows Vista Home Premium and a download for Windows 7. Can you recommend partitioning software?

A Vista includes excellent partitioning software. First, click Start, right-click Computer, and select Manage. Expand the Storage category and then click Disk Management.

Most of the actions you'll need are available by right-clicking your partitions. If you find that this isn't quite powerful enough for your needs, you might find Partition Manager 10.0 (\$39.95; www.paragon-software.com) more suitable. Partition Manager is compatible with both Vista and Win7; there's a trial download that will let you evaluate the program before purchase. **I**



Online

Q **What is a browser, and what does it do? Do I have a browser? (I have Vista and I use AOL and Google.)**

A A Web browser is an application that “renders” Web pages into something that you can see. Web pages are written in

HTML (Hypertext Markup Language). Two examples of popular Web browsers are Microsoft Internet Explorer and Mozilla Firefox. If you’re using AOL and accessing Google’s search engine on a Vista-based computer, you’re definitely using a Web browser. ■



Windows

Q **I am considering the purchase of a notebook computer. All the ones I like seem to be 64-bit. Can I expect most of my 32-bit software I have for Windows Vista to work with a 64-bit Windows 7 notebook? I had a bad experience with a Windows XP 64-bit computer several years ago. I had to buy upgrades for several programs. Is there any good reason to go 64-bit?**

A Computers that are 64-bit have a major advantage over their 32-bit brethren: They can use more memory. Most 32-bit computers are limited to approximately 4GB of memory. You can install more RAM, but Windows won’t be able to use it. With a 64-bit operating system, you have the potential for using over 128GB.

One thing to bear in mind is that a 64-bit computer isn’t necessarily faster than a 32-bit computer. It can simply use more

memory. This means that you can launch a lot of applications simultaneously without having them fight for memory resources. Of course, with a 32-bit computer, this would lead to using virtual memory that’s really just a section of your hard drive, and this may be very sluggish.

Most 32-bit applications will be able to run under a 64-bit version of Win7 without problems. Some notable exceptions are antivirus and security software. In addition, some hardware may require updated 64-bit drivers, so if you have old peripherals, you’ll want to check with the vendors to see if they’ve released updated drivers.

If you have really old programs from the DOS days, you’ll have to replace them. These programs are 16-bit, and though they will work on a 32-bit version of Windows, they won’t on a 64-bit version. ■



Online

Q **How can I accurately measure my Internet connection speed? My ISP (Internet service provider) says I have a 6Mbps (megabits per second) connection, but I’m skeptical.**

A The simplest way to see how fast your Internet connection performs is to visit a site that offers a free broadband tool. One example is DSL Reports (www.dslreports.com). These tools measure your speed in both directions: downloading files and uploading files. Despite the name, DSL Reports works fine with testing any Internet connection.

ISPs often couch their speed promises with terms such as “Up to ‘xyz’ megabits per second” or similar. This isn’t to take advantage of the unwary, but because there are multiple factors that affect how fast your connection appears.

First, ISPs only control your traffic to a certain point on the Internet. Imagine being on a four-lane highway and then turning off onto a country road paved in gravel. Your speed would naturally slow down on the country road. The same holds true when you connect to a Web site. The Web site has its own ISP, and its ISP may not have the speed to deliver Web pages or video as fast as yours might.

An additional bottleneck might be the Web server itself. If a lot of users are accessing a Web site at the same time, it doesn’t really matter how fast your Internet connection is.

Finally, your computer affects how fast your surfing appears. Some browsers are faster at rendering Web pages, and Web sites that use Flash to provide interactivity can struggle when viewed on an underpowered computer. ■

Frequently Asked Questions

Answers to users' most common questions about Portable Media Players

Hard drive-based PMPs record and store content on spinning platters, which are similar to those in your computer's hard drive.

FAQ **What type of media can I enjoy on a portable media player?**

A PMP (portable media player) is a broad title given to portable devices that play any type of digital media, including music, videos, photos, games, and audio books. This definition includes devices also known as DAP (digital audio players).

The type of media supported by your device depends on which type of device you get. Very basic DAPs generally offer music, photo, and video playback. Other DAPs might also offer FM radio or satellite radio (with a subscription). Devices such as portable game consoles and feature-rich DAPs often support Wi-Fi, which lets you stream content, such as Internet radio and videos, when you are in a Wi-Fi **hotspot** (a location where wireless Internet is available). With a Web connection, some PMPs can play live TV and even record it.

Some PMPs offer the ability to record video and download games, movies, and applications (including Web mail, instant messaging, and social networking applications). To find out if certain PMPs have any of the aforementioned features, check with the specifications listed on the package or the manufacturer's Web site.

FAQ **What is the difference between hard drive-based and flash-based PMPs?**

Hard drive-based PMPs record and store content on spinning platters, which are similar to those in your computer's hard drive. The moving parts make hard drive-based PMPs heavier than flash-based players and more susceptible to damage if they are dropped. However, PMPs with hard drives store more content than flash drive devices, making them ideal for people with large media collections.

On the other hand, PMPs with flash-based memory have no moving parts, which makes them more durable, lighter, and smaller. For these reasons, they are ideal for people with

an active lifestyle, such as runners and those who often go to the gym.

FAQ **How do I get content onto my media player?**

Your PMP will probably work in conjunction with computer software that lets you download media from an online store (or other sources). Once you have downloaded content to your computer, you can synchronize your device and the software while it's connected to your computer via a USB cord (packaged with the device). If your PMP doesn't include a software disc, you should be able to download the software from the manufacturer's Web site.

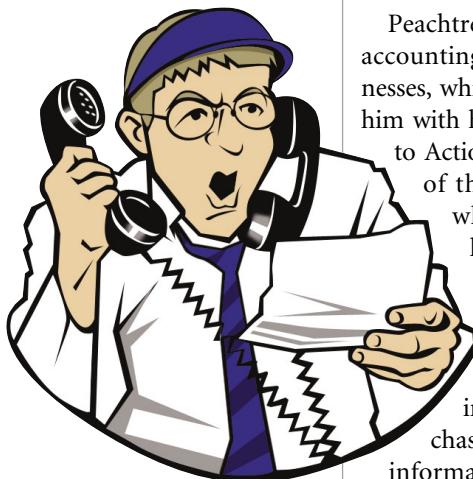
Some PMPs that support Wi-Fi let you download content directly to the device from online stores. With these types of devices, you won't need a computer to obtain content for your media player.

FAQ **How much memory should a PMP have?**

First consider how much content you plan to download onto your player and the type of media you use most. For example, music and photo files take up less memory than video and movie files. For those who plan to use their media players to listen to music for short periods of time and don't need to download lengthy playlists, 8GB or less is sufficient. If you have 1,000 or more songs in your music collection, or if you plan to download a few thousand music, photo, and short video files, you will probably need between 16GB and 32GB of space. Those who are looking forward to downloading movies, TV shows, games, and applications (along with your music and photo collections), consider a media player with 32GB of memory or more. Check with either the specifications of the player or the manufacturer for more information about the approximate number of songs or files a certain portable media player can store. ■

Are you having trouble finding a product or getting adequate service from a manufacturer? If so, we want to help solve your problem. Send us a description of the product you're seeking or the problem you're having with customer service. In billing disputes, include relevant information (such as account numbers or screen names for online services) and photocopies of checks. Include your phone number in case we need to contact you.

Letters may be edited for length and clarity; volume prohibits individual replies.



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Sage Software, McAfee Reimburse Customers

Sometime in July of 2009, I purchased the Peachtree Complete Accounting 2009 software program, hoping to use it to track my investments. When I opened the package and examined the user manual, I found nothing about tracking investments. On Aug. 17, 2009, I wrote to Sage Software (which produces Peachtree Complete Accounting 2009) about my problem and sent them the program in the original box with all the contents thereof. I never received any answer to my letter or a response of any kind. So, I no longer have the software program because I sent it back to the company, and my attempt to get a program that would meet my needs has been frustrated. Help.

Robert
San Juan, Puerto Rico

Peachtree Complete Accounting 2009 is an accounting program designed for small businesses, which wasn't what Jerry needed to help him with his personal finances. With his letter to Action Editor, Jerry also supplied a copy of the letter he sent to Sage Software, which had a U.S. Postal Service delivery confirmation receipt stamp.

After Action Editor contacted a representative from Sage Software, the Sage Software customer service department was unable to find any information about Robert or his purchase, so they were able to confirm the information through the copy of the letter that Robert had sent to Action Editor with the USPS delivery confirmation receipt stamp.

Although the company now had the letter Robert sent, they were only able to find limited information about the package containing the software through the package tracking information, which delayed the reimbursement process slightly. Because they were unable to locate the package, Sage Software had to create a new account for Robert and find out how much he paid for the software program and

how to credit his account. Robert did receive a phone call from a Sage Software representative, and he was granted a full reimbursement for the total amount of the software.

I hope you can help with a subscription reimbursement from McAfee. After I dropped them for the free subscription to AVG, I still received a bill on my credit card for the \$69 fee per year. I'd like your assistance to get credit for the \$69.

Jerry and Pat
Sherwood, Ark.

McAfee offers security programs for home and office computers as well as security for businesses of all sizes. The security software purchased by Jerry and Pat was for their home computer and was paid for through a one-year subscription. We sent Jerry and Pat's concerns along to a McAfee representative, and she explained to us that McAfee has an automatic renewal process designed to prevent McAfee's customers from having an unprotected computer—even for a short period of time. McAfee customers can be reimbursed for an auto-renewal charge by contacting the McAfee customer support department within 60 days of being charged. Customers can do this by calling the customer support department or by chatting with a customer support representative via live chat on the customer support department Web site (service.mcafee.com). Because Jerry and Pat were unaware of this stipulation, McAfee agreed to reimburse them even though the 60 days had expired. They were contacted directly (via phone call) by a McAfee representative and guaranteed a full refund. The representative even left a number for Jerry and Pat to call if the refund hadn't shown up within the allotted time period. The phone call was also followed up with a confirmation email from McAfee. Jerry and Pat have since received their reimbursement. ■

Going Outside



I'm ready to brave the cold, the elements, the dirt, and the wild animals. No—we're still a couple months from camping weather here in Philly. But I am switching to an external hard drive for all my personal data. Several months ago, I wrote about forestalling the need for a new hard drive. Those tricks worked for a while, but dead hardware is something else. After shopping for internal and external replacement drives, the best option was clear. It's a big world outside the case, but in the end, external storage is easier and safer to set up and configure, and all for the same price.

It all started with my 6-year-old music drive, packed with years of MP3s and AAC (Advanced Audio Coding) files downloaded from multiple music services and ripped from hundreds of CDs. It wasn't anything special technologically—just an 80GB IDE (Integrated Drive Electronics) internal hard drive set up as secondary on a chain with my system drive. I bought it when my music collection started to outgrow my original hard drive, and it has extended the life on that hardware by years. An extra internal drive was a great way to expand capacity without having to reinstall the OS (operating system) and all my applications, especially back when external hard drive storage involved buying clunky "drive harnesses." For years, I recommended using a secondary internal drive to both people who would listen.

One day, though, my machine simply wouldn't boot up. After the initial memory and hardware checks, I got an error asking me to insert a system disk. Uh-oh. For some reason, the BIOS (Basic Input/Output System) wasn't finding the Windows drive. With a sinking feeling, I girded myself for completely rebuilding the system on a brand-new

drive. Before clearing my schedule and heading out to the store, however, I decided to do a little investigation. Anytime you have two drives on a chain, there's the possibility of a failure on one impacting the other. I decided to start by opening the case and splitting them up. I knew which was which (thank you, Western Digital for clearly labeling your drives), so I removed the data drive and reconfigured the primary drive as standalone. Behold—bootup! Next, I confirmed that it was just my music drive that had gone bad by trying (unsuccessfully) to add it as secondary on a chain with my DVD burner.

With my problem well-defined, and a little less urgent, I hit the Web looking for deals on drives. Not having done any comparison shopping between hard drives for a couple years, I was amazed. External drives with a full terabyte were running at \$90 to \$100, with some deals reaching down to \$80. Internal HDDs cost about the same, with the hassle and risks of installation included free. For about equal money, the convenience of external drives can't be beat. No opening the case on antistatic mats or untangling a dusty tangle of wires and cables. No more setting jumpers, figuring out primary/secondary positioning, or any of that nonsense. Just plug in a USB cable to each end and reboot.

I like the future-proofing provided by external storage. As drive speeds and interface technologies (such as USB 3.0) improve, I can replace (or add) new, faster drives a heck of a lot cheaper than I can buy a new motherboard or replace an IDE or SATA controller. Finally, keeping the drive outside the case protects it from internal electrical problems and from the dust and heat endemic to every computer's case. It seems counterintuitive in a way, but somehow the inside of my computer manages to get even filthier than my office.

My reason for keeping a secondary drive remains. I like separating my data storage from where I have Windows and other applications installed. If one drive fails, you only lose half of that equation, rather than the whole thing. Thankfully, I had most of the MP3 history burned to a set of CDs, and I kept my original ripped CDs for use in the car and as backup for disasters just such as these. I'll cover the adventures of transitioning and consolidating all that music plus all my other personal data on that external drive next month. ■

BY GREGORY ANDERSON

Gregory Anderson is a regular contributor to Smart Computing and several other technology publications. He keeps a sharp eye (with the help of thick glasses) on computing trends and enjoys working with geeks of all stripes—most of the time. Share your outside adventures at gregory-anderson@smartcomputing.com.



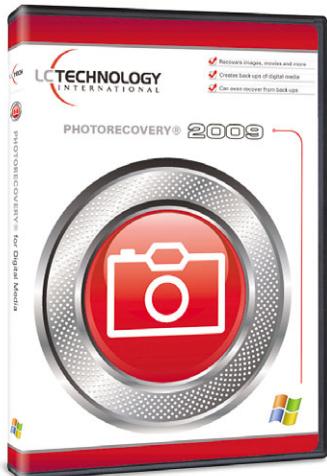
Juice Pack Air

\$79.95 | Mophie | www.mophie.com

Mophie's new battery pack for the iPhone 3G and 3GS does triple duty: it provides extra power, protects your iPhone's back and sides from scratches, and (importantly for many of us) preserves the iPhone's sleek appearance. The Juice Pack Air doesn't block important iPhone features, such as the camera.

You can charge the battery by plugging the included USB cable into your notebook. Mophie estimates that a full charge requires two or three

hours, but it points out that you can top off the battery whenever you'd like. A full charge should provide about double your phone's battery life, according to Mophie. (The iPhone 3GS' built-in battery can offer up to 12 hours of talk time, though that can be affected by the network type and other factors.)



Photorecovery Professional 2009

\$49.95

LC Technology
www.lc-tech.com

Retrieving deleted photos from your USB flash drive or camera's memory card isn't difficult, if you have the right software. I used Photorecovery Professional 2009 to scan several types of removable media, and I'm impressed by

its speed and thoroughness. It typically scanned the memory in under a minute, and it easily found many long-deleted photos.

I also like the software's interface. Once you install Photorecovery Professional on your PC and activate it, you simply select your card or flash drive from a list of potential targets and then click Scan. (Keep in mind that this software is designed to recover files from removable media, not your computer's hard drive.) Photorecovery Professional quickly scans your photos and saves them to a folder on your hard drive. You can start previewing the pictures while the scan runs.

Although Photorecovery Professional scans for pictures by default, you can configure it to scan for other file types, including documents. The software also has a Wipe feature that can permanently erase all files from your removable media.

Compiled by Joshua Gulick

Laptop Smart Feet

\$12.95 | NewPCGadgets.com | www.newpcgadgets.com

Notebooks are notorious for quickly building up heat when they are on flat surfaces. The easiest way to keep your notebook cool is to use a device that lifts the notebook up so that air passes underneath and carries away the heat. The trick, of course, is finding a product that isn't clunky.

Enter the small but sturdy Laptop Smart Feet. Once you apply each foot's base (via an adhesive pad) to the bottom of the notebook, you can snap the two feet onto the bases in a matter of seconds. I like this approach, because it means I can slip my notebook into my bag without the feet getting in the way. Each foot also has cable-routing clips.



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